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Mexico 1920: When Military Aviation Failed the Government
North Korean People's Air Force at War: Part 14
Export Dassault Mirage: Part 1
Brown Condor in Ethiopia
Exotic Birds II

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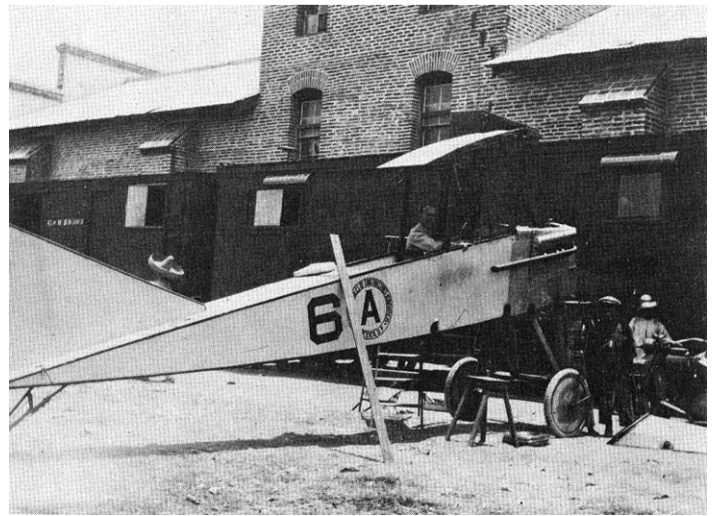
18. The Farman F-50Bn2 after May 1920 with visitors to Balbuena airfield. In the middle, Secretary of War and Navy, General Plutarco Elias Calles. Note the bomb rack between Calles and the pilot to the left of him. (Ing Enrique Velasco)



19 Farman F-50Bn2 with Tte. Fernando Proal and Tte. Carlos Santa Ana. (Ing. Enrique Velasco)



20 Captain Felipe Carranza, pilot of the Farman F50Bn2 who was captured and committed suicide. (Fondo A Salinas Carranza)



21 Another aircraft that received the 160hp Hispano Suiza engine and the longer upper wing was TNCA 6A19. It flew the first air mail in Mexico. (Ing. Enrique Velasco)



22 Another view of TNCA Serie A 35A50 equipped with the 160hp Hispano Suiza engine. (Hector Davila Cornejo)



23 The Italian mechanic, Francisco Santarini, who not only design and built aircraft and engines at the TNCA, but also helped train pilots although he was never a pilot. (Tohtli)

SMALL AIR FORCES OBSERVER

The Journal of the Small Air Forces Clearinghouse

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COVER COMMENTS: This photo of an Argentine Mirage introduces the first part of a two-part series on export Dassault Mirages. The cover photo shows two of the Mirage IIICJ single-seat radar-equipped interceptors refurbished in Israel and supplied to Argentina in December 1982. (Fuerza Aérea Argentina)

EDITORIAL: The subscription rate for SAFO has remained constant for a number of years despite sharply rising postal rates. For example, it now costs \$5.10 to mail one issue of SAFO to Europe. One reason the rate has remained constant is the introduction of the cyber edition that subsidizes the cost of mailing outside the US and helps allows me to report to the IRS (Internal Revenue Service) a year-end deficit.

However, I have reluctantly decided that the SAFCH can no longer afford this "red ink". The subscription rate for the Standard Edition for Canada & Mexico goes up to \$24.00, and for all others outside the US it goes up to \$28.00. The rate for the Standard edition of for the US remains at \$20.00, and rate for the Cyber Edition remains at \$12.00 for everybody.

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Ottobre 2014 (100 pages) Color photos: Singapore M-346 & E-3A, Bolivia Super Puma, Malta AW 139, & Mexico T-6C+. "Il primo duello" 4 pages inc. 9 photos. "Incidenti Militari" 2 pages inc. 6 photos (Libya MiG, Ukraine UAV, Iran AB 212, & Zimbabwe SF.260).

Novembre 2014 (100 pages) Color photos: Angola Yak-40 'T-450' & Qatar PC-21 "Su-34 Fullback" 6 pages inc. 7 photos. "Malta International Air Show" 2 pages inc. 5 photos (Egypt K8-E & Malta Alouette III). "Incidenti Militari" one page inc. 5 photos (Egypt C-130, Venezuela SF-269, & Iraq Mi-35).

Dicembre 2014 (100 pages) Color photos: Peru KAI KT-1P '400' & Thailand F-5F. "Addio al Corsaro" 4 pages inc. 12 photos. "Ernesto Cabruna: Carabiniere e aviatore" 4 pages inc. 7 photos. "Incidenti Militari" one page inc. 6 photos (South Korea Kamov KA-32, India Su-30, Bolivia Team Tango Tiluchi 'FAB-542', Taiwan AT-3, & China JL-8).

Mexico: May 1920

When Military Aviation Failed the Established Government

Santiago A Flores

A lot has been published on the history of the Mexican Air Force (Fuerza Aerea Mexicana) covering its successes, its challenges, and its changes through the years. However, there is a short period of time that has not been fully covered or has been passed over by many researchers and historians. Even in official government publications and websites there is no mention of the time when the Mexican air service failed to protect the established government. For example, diary of operations of the military aviation school (published in 1925) goes to December 30, 1919, skips to April 20, 1920 and then skips to May 31, 1920 to cover the first crash of a Farman F-50 bomber.

The Causes

The fall of the presidency of Venustiano Carranza (1859-1920) in April-May 1920 was caused by a short and bloody rebellion that started on April 11, 1920 with the "Plan of Agua Prieta". The northern state of Sonora, under governorship of Lic. Adolfo de la Huerta (1881-1955), declared open rebellion against the central government.

During this phase of the Mexican revolution (1917-1920), President Carranza had tried to take the country on a different road - away from military strongmen like Generals Obregon, Calles, Cardenas, etc. He had named a civilian successor for president in the person of Ing. Ignacio Bonillas (1858-1942). Bonillas was a former ambassador to the United States who had helped negotiate the withdrawal of American forces from the Port of Veracruz in November 1914.

However, this appointment was not accepted, since the majority of the people and the greater part of the military establishment favored a successor in the person General Alvaro Obregon (1880-1928).

These political passions, intrigues, and divisions not only affected the army but also the Mexican Air Service. As later told by eyewitnesses, there were pilots and ground personnel who favored Obregon over Bonilla who would affect the performance of the air service to the point of sabotaging of aircraft. These events would also show the weaknesses of the equipment in service at this critical time.

The Mexican Air Service 1920

The Mexican Air Service consisted of the Military Aviation School and the workshops known as the TNCA (Talleres Nacionales de Construcciones Aeronauticas) where aircraft were built and assembled for the service. Due to strained relations with the US and the war in

Europe, Mexico was forced to design, build, and modify its aircraft on its own. It even had to build its own engines.

In 1919, Colonel Alberto Salinas Carranza (1882-1970), who had founded the aviation school and workshops in November 1915, went to Europe to acquire aircraft, engines, and ammunition. With chief mechanic and designer Maestro Francisco Santarini Tognoli (1883-1954), he visited various countries among them France, Italy, and Spain. During this trip they acquired a number of Farman F-50 bomber and several Ansaldo Balilla fighters. They also acquired examples of the Spanish Hispano Suiza 150hp engine and the French Salmon radial engine.

Between 1918 to January 1920, the Mexican Air Service had deployed four flights of aircraft known as the "Flotillas Aereas". These were deployed at various parts of the Mexican Republic to fight rebel forces - there was no peace in the country.

Flotilla de Operaciones No.1	State of Veracruz
Flotilla de Operaciones No.2	State of Sonora
Flotilla de Operaciones No.3	State of Oaxaca
Flotilla de Operaciones No.4	State of Coahuila

These units flew a mixed bag of Mexican-built TNCA Serie A Biplanes and Serie H Parasol along with some experimental types. Two of the latter were the TNCA 80-A-P that had first flown in November 1919 and a monoplane known as the "Gato" (cat) that was in service with the 3/o. Flotilla.

These airmen flew in support of government troops fighting rebel factions (Villistas, Zapatistas, etc.). They flew messages to far-flung units, carried out reconnaissance missions, and bombed rebel concentrations. Because of the operational tempo, the Flotillas suffered severe aircraft losses. In addition, they had to deal with the ignorance of ground commanders who did not understand the value of having aviation assets at their disposal.

During these operations, they lost one pilot and a mechanic who were captured and killed by Villistas while they were trying to recover a downed Serie A Biplane of the fourth Flotilla in November 1919.

One of the Flotilla commanders, Capt. 1/o. Roberto Diez Martinez (1889-1920), wrote to Coronel Alberto Salinas, who had been transferred from command of the Aviation School to the military manufacturing establishment. A number of his letters detailed the difficulties the flotillas were encountering. He complained about the shortage of spare parts, the need for better

engines, the lack of support from the ground commander, and even the lack of temporary shelter/hangars for the aircraft. He also requested aircraft equipped with the Hispano Suiza engine with the higher horsepower needed to operate in the north of the country.

The first two Farman F-50Bn.2 (of an eventual 13 ordered) had been packed in ten crates and put onboard the Dutch ship *Zuidremijl*. However, when the ship arrived at Veracruz on the 10th of April, six of the crates were found to have suffered storm damage. The Mexican government filed a claim for damages, since the cargo had been insured before it left France.

Maestro Santarini was ordered to “build” one bomber from the wreckage of the two. The rebuilding of these bombers was told by aviation mechanic Medardo Cordova Torres (18xx-1961) who left behind a number of written accounts. These were reprinted in the book, “Historia de la Iniciación de la Fuerza Aérea Mexicana” (The History of the beginning of the Mexican Air Force), by Cordova Torres and published in Mexico after 1962:

In the workshops there was no break from activity because some aircraft had arrived from Europe. They had been purchased by Chief Santarini who had been commissioned for the task. The aircraft were built by Farman of Paris and equipped with two water-cooled 275hp engines of V-form. During the Great War, the French had used this type as a bomber. Several Salmon radial engines had been brought over as well.

The Farman aircraft had arrived completely wrecked; wings, fuselage, rudders, everything was in small pieces except for the engines that had been packed separately. All this made repairs difficult, but not impossible. Preference was given to build one bomber.

The workers made an exact copy of the big aircraft, and at the end of April 1920 it was taken to Balbuena airfield to be test flown.

Because of the increasing political turmoil within and around the Carranza government, there was an urgent need to get the Farman operational. As the French test pilot had not arrived, a decision was made to select one of the Mexican pilots. All the pilots went to Colonel Salinas and offered to fly the Farman. The decision to select the pilot not only fell on Colonel Salinas, but also on Santarini as well.

After consultation, the pilot who was selected was pilot Carlos Santana Carabeo (1894-1920) known as the “El Indio” (Indian). After brief explanation of the instrument panel by Colonel Salinas, Santana took off and performed a perfect flight. After that, Colonel Salinas named Santana chief instructor on the Farman.

The Carranza forces used every means to defeat the rebels. Plans were even drawn up to use the Farman

bomber to attack the rebel state of Sonora from Mexico City via a long-distance flight with fuel stops and landing grounds for emergencies along the way. A team of pilots, under the command of Tte P.A. Rafael Montero Ramos, (1895-1959), were sent to survey and establish landing strips. This task was well under way, but due to the rapid advance of the rebel, they were recalled to Mexico City.

Colonel Salinas and Tte. Fernando Proal Pardo (1891-1965) requested an audience with the president to propose a plan to fly him out to Veracruz in the Farman bomber, but the president politely turned down the offer preferring to share the fate of his forces. With the “Ejército Liberal Constitucionalista” getting closer to the capital and more army units joining them, the Mexican Air Service was put into action. It is reported that Santana used the Farman to bomb rebel forces at Morelos in early May 1920, while other aircraft flew reconnaissance missions.

[Author Note: I would be interested in knowing if the Farman has bomb racks installed and what type of bombs were used. Were bombs bought with the bombers or did they use locally built bombs dropped from the side of the aircraft? Where any machineguns installed in the nose and rear gunner positions?]

The Evacuation

On May 5th, Captain 1/o/P.A. Felipe Sanchez Carranza (18xx-1920) was named chief pilot and more bombing missions were carried out that same morning in the regions of Yautepec and Tres Marias. Pilot Samuel C. Rojas undertook a reconnaissance mission along the railroad line only to return with wings holed by enemy ground fire and one impact in front of his seat. Before the announced evacuation of the capital, Tte Eliseo Martín del Campo (1900-1971) would write the following account about what happen in his memoirs “40 Años y Siempre con la Aviación” (40 Years and Always with Aviation).

The last 72 hours during the defection, President Carranza was protected by myself and David Mendoza Hermosillo (1900-19xx), the officer in charge of guard duty. On the last night while preparations were being made for the evacuation of the government forces, the telephone rang about 4pm and on the other end a voice asked:

“Commander of the hangar guards?”

“Present. Who calls?”

“It’s Colonel Salinas.”

“At your orders, my Colonel.”

“Immediately you and another officer go to the house of Captain Villasana and bring him to my house.” (Capt. Juan Guillermo Villasana, aviation pioneer 1891-1959)

“Perfect my Colonel.”

After I had hung up the phone, Mendoza told me, “Compadre, go in the Ford along with Gutierrez (fellow pilot Juan Gutierrez Valladares 19xx-1929) and

pick up Capt. Villasana from his house or wherever you find him and take him to Colonel Salinas's house." Yes Commander" and I took off. We arrived at Villasana's house and I let him know the orders and we went to the Colonia del Valle. Gutierrez and I remained in the car outside of the house but in front of the open window of the office of Salinas. Colonel Salinas said: "Villasana, have you completed my order?"

"Yes, my Colonel."

"I want the railroad cars that are at the workshops to be loaded with all the aviation material you can, specially the engines. Everything must be done immediately. The cars should be moved to the railroad yards where an aviation train is being formed. Please hear this well Villasana, the material that cannot not be taken should be burned. Leave immediately and see that my orders are carried out."

After the above events, Martin del Campo dropped off Villasana at the workshops and headed back to the airfield where he explain everything to his brother Waldo (also a pilot 1899-1928). After finishing his story, Mendoza told him that this sounded like a retreat. At this time Martin del Campo didn't know that Mendoza was with the Obregonista group inside the Aviation Air Service.

Later at about 7pm, the guards received a call from Colonel Salinas ordering them to release the guards so they could go home and get their belongings and to leave the hangars in charge of civilian guards.

On the morning of the 7th, Captain Benjamin Becerril, now in charge of the Aviation School, had all service personnel mustered and read the orders from President Carranza giving freedom to those who wished to remain behind without any pressures or reprisals. Capt. Becerril also asked those who wished to stay behind to take a step forward - nobody did. Then, orders were given for the evacuation of material and personnel.

In the evening, Capt. Sanchez Carranza ordered mechanic Medardo Cordoba to prepare the Farman and the "Hispanos" for flight the next day. That night, in front of the hangar, Capt. Carranza and mechanic Medardo Cordoba parked in the front of the aircraft and he told Cordoba the following:

"I wish it would not be tomorrow, my Colonel has feed pure snakes. I do not want to see this place stained by treason. Now, my Colonel has entrusted me the aviation unit and I don't what to fail. By my honor, I will not see everything thrown away."

The Betrayal

Mechanic Medardo Cordoba, who was present at Balbuena airfield on the morning of the 8th:

Early in the morning, I moved the aircraft out of the hangars. First the Farman and then the Hispanos. When the sun appeared on the horizon, the pilots arrived to occupy their post. Captain Sanchez Carranza, in the cockpit of the Farman, gave the order for the first Hispano to take off. It flew over the airfield in a large semicircle and headed in the direction of Puebla"

Suddenly the whistle of a locomotive alerted us to a long convoy with rebel troop that was slowly stopping. "They are here", yelled the captain, "let's get out of here!" Indio Santana made the engines of the Farman come to life and took off heading in the direction of Texcoco. Pilot Rojas and I were in the second Hispano. He was as calm as usual. When we observed the rebel troops getting off the rail cars, he gunned the engine and took off.

In the account, there is no mention if there were other aircraft left in the hangars, or if the aircraft that took off had any armament in the form of bomb, machineguns, and ammo. There seems to have been no organization of the mission of the three aircraft involved. So far we know, they were to protect the president's train - but with what? If the aircraft did not carried any armament, they only function they could perform was reconnaissance. And, where were they to land? It would have been easy for the Hispanos, but what about the big Farman, where could it land without damage? Perhaps, they were supposed to fly to Veracruz. If they had, they would have been captured by the rebels since the garrison commander there had already gone to the rebel side.

The aircraft and crew that departed Balbuena airfield were:

Farman F-50Bn2. Capt. Felipe S Carranza; Tte. Joaquin Martinez de Alba; and Tte. Carlos Santa Ana. TNCA Serie A Biplane equipped with a 160hp Hispano Suiza. Tte Jorge H. Bernard and Tte. Felipe H. Garcia.

TNCA Serie B?? Biplane equipped with a 160hp Hispano Suiza. Tte. Samuel C Rojas and Mec. Medardo Cordoba Torres.

There is confusion as to the actual type of the third aircraft. Cordoba, in his memoirs referred to this aircraft as the TNCA Serie B No.1 designed by Maestro Francisco Santarini. Later in another account, we will see it referred to as a TNCA Serie H Parasol. Noted aircraft researcher, Sr. Pablo Larumbe Duran, identified this aircraft as the TNCA No.4 as early parasol type aircraft. However, the Parasol No.4 was designed in 1916 and in the Operational Diary of the Military Aviation School it is reported that the No.4 was withdrawn from service in August 1917.

Concerning the aviation trains that Colonel Salinas had Captain Villasana organized: The loading of the train started in the afternoon of the 7th, but it was not until the following morning that the first aviation train was finally able to leave the station.

All went well until 9am while the trains were passing Villa Madero that enemy cavalry, under the command of General Jesus M Guajardo (1892-1920), attacked the last trains leaving Mexico City among which were the aviation trains. Loyal troops tried to stop the attack, but were not successful. Aviation personnel not trained for ground combat were easily dispersed or captured to be later returned to the airfield.

All the equipment onboard the trains was captured and would be returned to the shops and airfield. Colonel Alberto Salinas Carranza, who was in charge of the aviation trains, was wounded during the fighting. He was evacuated to the White Cross hospital in Mexico City. [Later Colonel Salinas would escape to the United States; settling in San Antonio, Texas, with his mother, wife, and infant child.]

As for three aircraft that took off, only the TNCA Serie B with Rojas and Medardo Cordoba made it to the trains. The other two aircraft made force landings due to engine failure. This has fueled the sabotage theory that has persisted among aviation circles and historians ever since.

Both engines of the Farman F-50Bn2 engine stopped near Lake Texcoco resulting in a force landing at Las Blancas. Martinez Alba was hurt. Capt. Carranza decided to stay with him while ordering Santa Ana to join the trains at Los Aljibes. Capt. Carranza and Martinez Alba were captured by Zapatistas soldiers.

On 8 May, while in prison and after hearing about the signing of an anti-Carranza flyer by many of his pilots, Captain Carranza was taken to his jailer. He asked his jailer if he could see his weapon. His jailer, who was also a friend, complied and Captain Carranza shot himself in the head.

While the second aircraft, the Serie A Biplane with Tte. Jorge H Bernard and Felipe H. Garcia, made it to the La Magdalena ranch before their engine stopped. Leaving the aircraft, they tried to reach Apizaco, but were captured by Zapatistas soldiers and sent back to Mexico City where they were set free.

The Last Flight

The third aircraft, with Rojas and Cordoba, made it to the trains at Aljibes. Rebel forces had destroyed the rail lines and the loyal forces who were left were trying to repair the track to Veracruz, but they were under constant attack. Later, the road to Veracruz would be blocked when the commander of the garrison went to the rebel side. This forced President Carranza to abandon the trains and with a few loyal followers headed north on horse back. [The rebellion ended on May 21, 1920, with the killing of

President Venustiano Carranza in a hut near the village of Tlaxcalantongo, Puebla.]

The last Hispano aircraft was put on a flat car after it had flown a number of reconnaissance missions by Rojas. Rojas was later wounded in the leg by a fragment of an enemy artillery shell that landed close to him while on horseback. The horse was killed.

The other pilot who made it to Aljibes was Carlos Santa Ana who, in an account written by Cordoba Torres, undertook a reconnaissance mission ordered by President Carranza. Santa Ana found Medardo about to eat a piece of pork:

"Medardo, how is the Hispano? The President ordered me to fly a reconnaissance flight over enemy lines"

"Ready", I answered but there is only a little oil and a little fuel. But, we need only to lower it from the car, arm it, and it will be ready. Complete the fuel with cooking oil and automotive fuel and let's go lower it."

During the difficult process of lowering the aircraft from the railroad car, the fuselage was dropped hard, damaging the landing gear and one of the propeller blades.

"Now it cannot fly", I told Carlos (Santana) as I showed him the damages. "The order has to be carried out. I will fly it this way. Assemble it". The aircraft was ready in a couple of minutes - a record since we did not have the proper tools. None of the struts were secured and none of the screws were correctly tightened. There were no spare parts; the train that carried them had been captured by the enemy. The motor was warmed up, and after choosing a piece of land that didn't have too many obstacles, the aircraft was positioned for takeoff.

The aircraft was number 1 of the Serie B Biplanes that had been designed by Colonel Salinas and Maestro Santarini in 1916. The upper wing was a couple of meters larger than the lower one giving it beautiful lines. All its structure was manufactured at the Talleres Nacionales de Construcciones Aeronauticas from Mexican materials. The engine was a 160hp Hispano Suiza.

[Author's Note: Based on the book *Aviacion Mexicana*, by Pablo Larumbe Duran, who did an extensive study of the TNCA Serie A Biplanes, the following TNCA Serie A Biplanes were modified or built to receive the Hispano Suiza 160hp engine and had the upper wing extensions:

6-A-19 built 1917; modified 1919?
35-A-50 built 1919
36-A-51 built 1919
37-A-52 built 1919
38-A-?? built 1919

Could these be the “Hispanos” that Medardo Cordoba was referring to? Or, did Maestro Santarini have planned to change their designation to Serie B to separate them from the other Serie A Biplanes that had radial engines and not received the extended upper wing?]

Santana undertook a reconnaissance flight along the railroad line and after landing rendered his report to the president. At that moment, as told by Medardo Cordoba, enemy cavalry started to attack the rail lines.

Santana asked if I had checked the aircraft. “Yes”, I answered. “Some struts were loose, but they have been tightened and there are bullet holes in the tail and a hole in front of the seat”. “Yes, that bullet missed my face.”

The enemy cavalry were already passing the rail cars, when Santana took off. Flying at low level, he made many passes at the enemy cavalry, firing his pistols - causing panic among the enemy riders.

When Santana used up all the ammo in his pistols, he returned. The wings and fuselage were perforate, and the gas and oil tanks empty due to bullet holes. “Burn it so they cannot use it against use and let’s go they are here”, he told me. Rebel bullets were already raising dust around us, so we followed the President into the Sierras.

In the end Santana, Rojas, and Medardo were captured and were returned to Mexico City. Rojas went into the hospital to recover and eventually went back to the airfield in a cast.

While these events were happening, the pilots coming back to Balbuena Airfield were surprised to learn that Capt. 1/o. P.A. Roberto Diez Martinez leader of the Obregonista group in the Aviation Service had taken over the school and the aviation shops with Luis Preciado de la Torre since 8 May 1920.

Another pilot who was part of the group that favored Obregon was Rafael Ponce de Leon (1901-1942). He had political tendencies and was reported to have written an article against Colonel Salinas exposing the way he was mismanaging the aviation service.

Three days after taking the capital, General Pablo Gonzalez (1879-1950), now the Mexico City military commander, decided to intensify the attacks on President Carranza. He ordered the following pilots: Tte P.A. Fernando Proal, Rafael Altamirano, Jesus Romo, and Salvador I Cano, to take off and attack the president’s group. But, Tte. Cano told the rebel general that if they found President Carranza they would not attack him, but join him. After meditating for a moment General Gonzalez said:

“Gentlemen, I conceded your reason, and I don’t need to say anything about your loyalty. You may leave.”

The Aftermath

After the fall and death of President Carranza, Diez Martinez and his followers took over the Air Service and Workshops. Diez Martinez was officially named chief of the school by the leader of the Plan de Agua Prieta, Lawyer Adolfo de la Huerta. However, his tenure as chief was cut short due to an accident on May 31, 1920 when he died in the crash of a Farman F-50Bn2 bomber at Mexico City.

It appears that all the aviation material, including the three aircraft that had taken off to protect the Presidential trains, were recovered and brought back to the workshops to be repaired and put back in service.

Colonel Alberto Salinas headed for exile in the United States, but in November 1920, he Salinas briefly returned to Mexico City to attend to some personal matters. Years later, after the political passions had calmed down, he would return to Mexico, rejoin the Air Force, and become its commander in the late 1930’s.

Maestro Francisco Santarini, was retained as a flight instructor at the Aviation School when it reopened with pilots Samuel C Rojas, Guillermo Ponce de Leon, and Santiago Vazquez. Eventually, Santarini would leave the aviation school to set up some private ventures to run vehicle repair shops. He would eventually settle in the state of Veracruz where he passed away.

Captain Juan Guillermo Villasana was no longer director of the TNCA. His place was taken over by civilian engineer Angel Lascrain y Osio, who continued to produce national-built aircraft. Villasana would later establish the Department of Civil Aeronautics. During his career, he would return to the Air Force on several occasions.

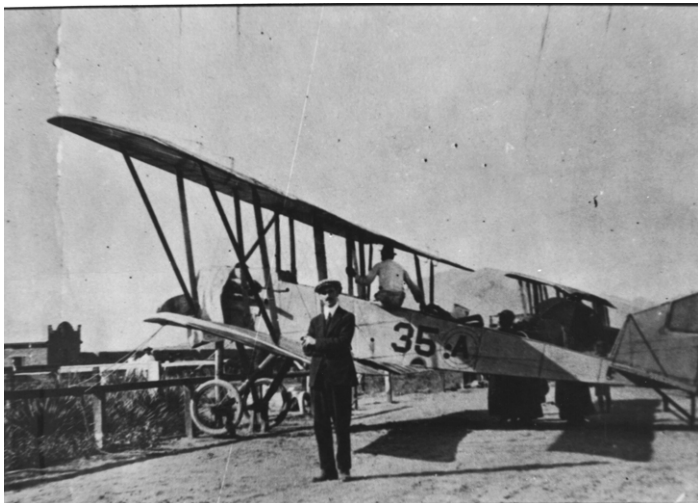
But the biggest and most profound change was about to occur to the Mexican Air Service with the arrival of former USAAS Lt. Ralph O’Neill (born in Mexico). He had been a fighter pilot with the 147th Aero Squadron, who during his combat tour over the skies of France, was credited with 6 confirmed and 5 probable victories over German aircraft. Hired by Adolfo de la Huerta, O’Neill would modernize the training system of the aviation school, introduce the dual control training, retrain the old pilots to the new standards, and introduce the Avro 504 trainer to the air service. This training would benefit the next generation of cadets who in the near future would take their wings beyond the country. Mexican military aviation was about to enter a new chapter in its history.

Santiago A. Flores (SAFCH #588), USA.

“Sources & References” are on page 142.



1 TNCA Serie A 37A52 equipped with a Hispano Suiza 160hp engine. This aircraft was assigned to the Flotilla de Operaciones No.3. Note the Indian-head insignia painted on the rudder. (Dan Hagedorn)



2 TNCA Serie A 35A50 of the Flotilla de Operaciones No.1 equipped with a 160hp Hispano Suiza Engine; used operationally at Queretaro, Puebla and Guadalajara. (Dan Hagedorn)



3 Another view of TNCA 37A52. Could this aircraft have been involved in the protection of the Presidential trains in May 1920? (Dan Hagedorn)



4 Colonel Alberto Salinas Carranza; founder of the Mexican Air Service. His uncle was President Venustiano Carranza whom he supported until the President's death in May 1920. (Smithsonian)



5 President Venustiano Carranza at his desk., Note what appears to be an early aerial bomb. (Author's Collection)



6 Another leader of the rebellion against Carranza was General Plutarco Elias Calles. (Author's Collection)



7 Leader of the Plan de Agua Prieta and later Intern President of Mexico, Lic. Adolfo de la Huerta, who would also meet and later contracted the service of former Lt. Ralph O Neill. (Author's Collection)



10 Tte. Luis Preciado de la Torre was one of the members of the Obregon supporters within the Aviation Service, who helped take over the school and shops on May 8, 1920. (Fondo A Salinas Carranza)



8 One of the defending pilots of the Carranza regime was Tte, Carlos Santa Ana Caraveo, who would fly the last mission in May 1920.. (Fondo A Salinas Carranza)



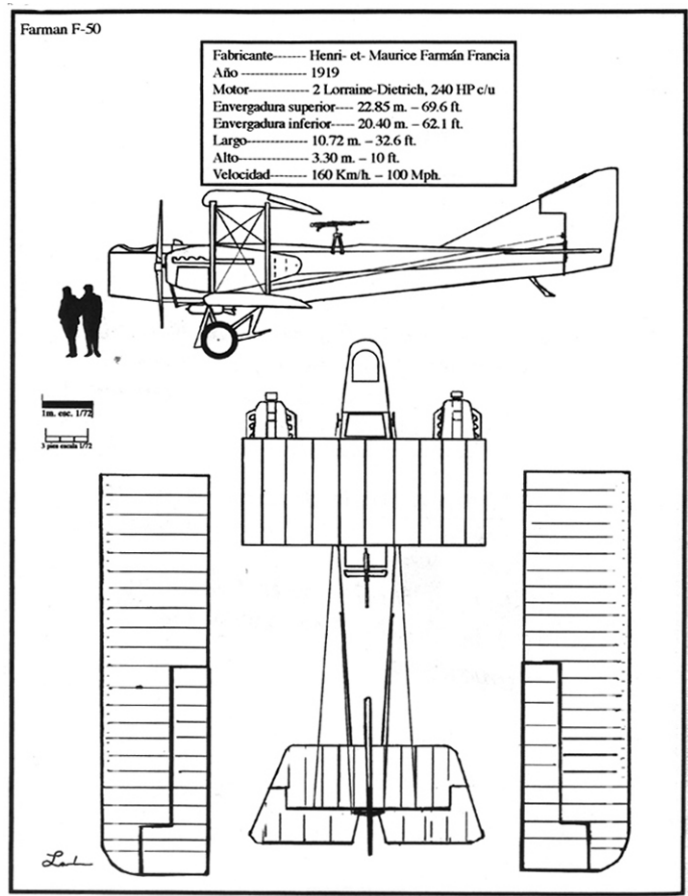
11 Capt. Engineer Juan Guillermo Villasana in his later years seated in a helicopter he designed. He did not follow the orders to destroy the aviation equipment that was left behind. (Author's Collection)



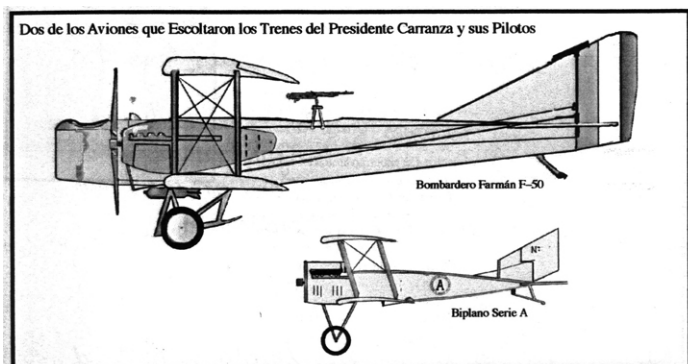
9 A witness to the tragic events of May 1920 was Tte. P.A. Eliseo. Martin del Campo. (Tohtli)



12 Another leader of the Plan de Agua Prieta and future president of Mexico, General Alvaro Obregon. (Author's Collection)



13. 3-view of the Farman F-50Bn.2 bomber that arrived in April 1920 and was used in the defense of the Carranza government. (Pablo Larumbe Duran)



14 Side view of the 2 type of aircraft that took off to defend the trains: the Farman F50Bn2 and one of the Serie A Biplanes referred as a "Hispano". (Pablo Larumbe Duran)

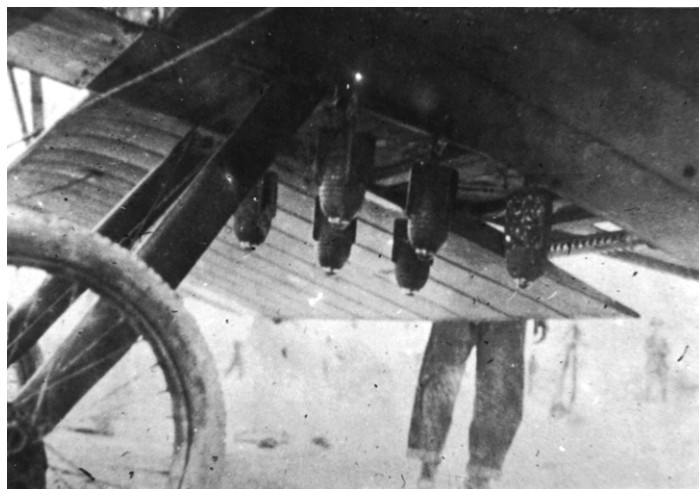
Photo coverage continues on pages 110 & 143.



15 Tte. Samuel C Rojas, who with Mechanic Medardo Cordoba, made it to the Presidential trains in a reported TNCA Serie B aircraft. (Archivo General de la Nacion)



16. A scene at Balbuena airfield showing two Serie A Biplanes with the 160hp Hispano Suiza engines and the longer upper wing. Could one of these have been involved in May 1920. (Ing.Enrique Velasco)



17. Six light bombs mounted on the bottom of the TNCA Serie A Biplane; the typical armament of the Serie A during the campaigns of 1918-1920. (Dan Hagedorn)

The Korean People's Air Force

in the Fatherland Liberation War

Part 14: Ending the War

Douglas C. Dildy

"It is necessary either to actively carry out military operations or to end the war; a further dragging out of the existing situation is not in the interest of the DPRK and PRC, or of the entire [people's] democratic camp."

Kim Il-Sung, in a Cyphered Telegram to Soviet Foreign Minister Vyacheslav Molotov, 29 March 1953

The Beginning of the End

On 12 March 1953 – one week after Stalin's death – the KPAF was reported to possess 194 combat aircraft, including 97 MiG-15bis (1st and 2nd FADs), 39 Il-28s (likely the 11th BAD) and 58 other, obsolete types (14 Tu-2s, 20 Il-10s and 24 La-9s). Additionally there were approximately 25 older MiG-15s (3rd FAD) and 50 other types (Po-2s, Li-2s, and Yak-11/18s) in the training and transportation command at Yanji, PRC.

In spite of re-equipping with the more powerful MiG-15bis and the Soviets' new twin-jet tactical bomber, the Communist coalition had proven unable to expand the contested airspace of "MiG Alley" southwards beyond the Chongchon River – P'yongyang remained completely exposed to US/UN air attacks – and was deterred from mounting any of the daytime air attacks on "airfields, warehouses, barracks, and other military installations of the enemy" – the "active military operations" so desperately wanted by Kim Il-Sung.

By the time Stalin suffered his debilitating and eventually fatal stroke, due to the horrific devastation the North Koreans had endured, Kim Il-Sung and his regime were ready for a cease fire and Mao Zedong – because of Chinese Communist priorities shifting to rebuilding their nation and its economy following the ravaging civil war – also began favoring an armistice. During the ceremonies and Politburo meetings accompanying Stalin's funeral, Chinese Premier Zhou Enlai secured the agreement of Georgy Malenkov (Stalin's heir apparent) and the Supreme Soviet to pursue a more conciliatory approach, resuming the "peace talks" at Panmunjom. This move was publicly applauded and diplomatically encouraged by the Soviets and on 20 April the first POW exchange ("Operation Little Switch") returned 6,169 sick and wounded prisoners to their home nations.

Despite the promise provided by the (now) more productive negotiations for ending the war, the fighting in "MiG Alley" continued with increasingly ferocity, fueled primarily by the mounting "MiG madness" and the "ace race" amongst the now clearly superior USAF F-86F pilots. During April through June, Soviet units lost 39 MiG-15s destroyed and 15 pilots killed. (Note 1) With Stalin's death and the obvious change in Soviet interest in

(not) prolonging the war, the Russian MiG units lost much of their motivation for continuing the battle. The resulting lower morale, "accumulated combat fatigue, and disadvantageous operating conditions contributed to [July's] high loss rate" – another 15 MiGs lost and four pilots killed. The Russians' blamed the summer's "reduction of their combat effectiveness" and "disadvantageous operating conditions" to the introduction of inexperienced Chinese and North Korean pilots, who often "caused a different situation and influence on results of combat operations."

According to one Russian history, "The UAA was becoming increasingly more active, and their number of sorties increased, which compensated for the reduction in the combat activity of the 64th IAK." Increasingly the five PLAAF and two KPAF MiG-15 FADs (see Appendix 7 in SAFO #150) shouldered the larger burden of meeting the Sabres in "MiG Alley", the Chinese accepting the fact that, initially at least, theirs were primarily "combat training missions" with potentially lethal outcomes. However, the ensuing slaughter of ill-trained and woefully inexperienced PLAAF pilots – losing as many as 62 MiGs and 20 pilots (Note 2) in combat with F-86s during April, May and June (Note 3) – prompted Mao to send General Wang Bingzhang, the PLAAF's first deputy commander, to Langtao to "rescue the situation". In response, the PLAAF rotated three new/fresh air divisions (6th, 16th and 17th FADs) to the Andong-complex airfields, augmenting the veteran 4th FAD in fighting the highly experienced and increasingly aggressive USAF Sabre pilots.

56th GFAR – Fighting to (near) the End

The North Koreans, however, had more at stake in the waning months of the contest and from Langtao airfield, the 56th GFAR strove to show that they "were not just 'boys into battle'" in the deadly "game" of aerial combat. Major Kim Chi-San's (Note 4) "Guards Taejon" flew 96 sorties in May, most of them during the three days 8-10 May. On one occasion, "The squadron [commanded by Kim Sheng-Uk] received the assignment to intercept enemy aircraft which had penetrated to the Chongchon River area. Arriving in the designated area, the squadron commander's wingman Lee Gil-Bok spotted a pair of

enemy aircraft and reported this to the commander. The leader attacked them from above and shot one of them down. But at this point they were themselves attacked from above by a flight of four F-86s. The wingman drove off this attack, and abandoning his leader, went in hot pursuit of them. He chased them down and attacked them straightaway, downing one of the Sabres, but the other three F-86s caught him in pincers and damaged his aircraft. Things would have turned out badly for the young pilot, if his squadron hadn't hurried to his assistance. Lee Gil-Bok brought his damaged MiG back to base with difficulty and landed it." (Note 5)

As one Russian historian reported, "May 1953 marked an increase in combat activity of the UAA, especially as our sources note, the North Korean pilots." This continued in June and July, culminating with the KPAF MiG-15s flying an increased percentage of combat missions – totaling 38.24 per cent of the UAA's 1,632 sorties flown in the last two months of the war. (Note 6) From early May until mid-July, the 56th GFAR was credited with destroying 25 enemy aircraft and damaging 5 more. Major Kim Chi-San was personally credited with four "kills" and one damaged and on 17 July was awarded the title "Hero of the DPRK".

Two days later the "Guards Taejon" returned to combat with even greater enthusiasm. On the afternoon of 19 July, as a part of FEAF's "airfield denial campaign" (see below), Fifth AF launched a massive fighter-bomber strike against the airfields at Sinuiju and Uiju. Participating were the 8th and 18th Fighter-Bomber Wings – by now both were completely equipped with F-86Fs – covered by the 4th and 51st FIWs, making a total of 168 Sabres flying in the strike. The an estimated 16 MiG-15s from Kim's 56th GFAR, accompanied by 24 MiG-15s from the PLAAF's 10th and 16th FARs (of the 4th and 6th FADs, respectively) attempted to repulse the raiders while the Soviet 32nd IAD's regiments covered the Chinese airfields. In the ensuing air battle no F-86s were lost, despite PLAAF and Soviet claims of shooting down one each. Sabre pilots were credited with ten MiG-15s shot down (two of which are known to have been Soviet jets; the PLAAF lost none this day), plus another three when the raids were repeated the next day. (Note 7)

During the two days' air battles the 56th GFAR claimed 11 Sabres destroyed – bringing the unit's total score to 36 for the May-July period – of which Kim was credited with two additional victories, both on 20 July, bringing his personal tally to six "kills".

FEAF's Airfield Denial Campaign

Informed that their governments would be seeking a negotiated end to the fighting in Korea, on 27 March 1953, PLAAF General Nie Fengzhi and his UAA HQ convened a "joint conference" at Langtao, attended by four Chinese

MiG-15 air division commanders, KPAF commander Major General Wang Yong, and representatives from the Soviet 64th IAK HQ at Shenyang. (Note 8) In discussions concerning the "end game" for the Korean conflict's air war, the conferees agreed that as much "aviation materiel" as possible should be positioned in North Korea by the date and time that the cease fire took effect, thus allowing the Russians and Chinese to withdraw with some confidence that the North Koreans could defend themselves in the event of a resumption of combat.

According to points already agreed to by both UNC and Communist negotiators, the draft armistice provided that "combat aircraft in Korea cannot be reinforced following the end of hostilities, but worn out or damaged aircraft can be replaced with equipment of the same type." Therefore, the Russians agreed to provide as many as 600 MiG-15s (including transferring to the KPAF those already present in Soviet units in Manchuria) by flying in 100 aircraft to each of the six MiG bases being used by the UAA, thus positioning them for quick movement into North Korea just before the cease fire took effect. (Note 9) To receive them, the KPAF and PLAAF agreed to "rehabilitate" a number of airfields from the Yalu River to P'yongyang. While USAF and CIA communications and signals intelligence made American leaders aware of the former, Fifth AF photo-reconnaissance soon discovered the latter.

In addition to the two airfields at Sinuiju and one at Uiju, the sod strip at Sariwon, and P'yongyang's Heijo air base that were largely maintained in some sort of working order throughout the conflict, the USAF's 67th Tactical Reconnaissance Wing (67th TRW) monitored 30 other airfield sites in North Korea. By the end of April the 67th TRW's RF-80As and RF-86As had discovered the creation of three new airfields deep in the interior, along the Chinese border, and that six others – heavily cratered and unused for months – were being repaired. (Note 10) Also aware of the provision within the draft armistice, General Otto P. Weyland and his FEAF staff also surmised that "to get ready for the cease fire, the Communists intended to repair as many airfields as possible and then, in the last hours before the truce went into effect, to rush in a maximum number of aircraft." To thwart this possibility and thereby deny the KPAF the ability to re-establish itself in strength on its own territory, FEAF Bomber Command planned on mounting a bombing campaign against these airfields. Specifically, the mission objectives were to destroy runways, "cutting" them to reduce any landing surface to less than the 3,000ft (914m) needed for the MiG-15.

Beginning on 10/11 June FEAF B-29 Superfortresses began nightly raids against these airfields, and were joined three nights later by carrier-based fighter-bombers from TF77. By this time, the rather desperate straits of the

Communist MiG-15 units battling the superior F-86F in “MiG Alley” led the Soviets to return their three ad hoc “night fighter” units (See SAFO #151, KPAF Part 13, Note 1) to daylight operations by March, leaving only one dedicated night-fighter unit (298th OIAP). (Note 11) During the five months before the end of the conflict, the Russian night-fighter MiGs failed to destroy a single B-29. By 23 June all of the target airfields except one (Hoeryong [K-35], in the far north, along the PRC border) had been neutralized.

However, the armistice negotiations slowed, orchestrated by the CPVA and KPA to allow the launching of one final offensive so that the Communists could be seen as signing the cease fire while they were “winning” the war. Meanwhile a typical Korean summer foul weather system foiled UNC air operations for nearly three weeks. When they could fly, FEAF and TF77 were forced to turn their bombing efforts to interdiction and close air support and during this distraction – and under the cover of the bad weather – the Chinese troops and local Korean laborers “made remarkable progress in their airfield rehabilitation efforts.”

Appointed by General Wang, the movement of the KPAF’s 220 combat aircraft into North Korea was the responsibility of General Kim Han-Jun, the service’s political commissar (top political officer, with authority equal to the commander). On 17 July, the KPAF’s 10th CAD flew 21 La-9s into Sinuiju and dispersed them in berm-protected revetments. (Note 12) Two days later, using the sod “infield” at Uiju, the KPAF’s 1st FAD began flying its 43 MiG-15bis into that base. According to Lt No Kum-Sok, these were shuttled from Langtao to Uiju six at a time and “as soon as a MiG landed, it was pushed south to the mountainside [bordering that side of the airfield] and camouflaged” and the pilots were trucked back to Langtao. Alerted to the movement, Fifth AF launched its massive fighter-bomber strike against Sinuiju and Uiju, attacks beginning at 1615hrs that afternoon. The initial attacks destroyed six La-9s (the survivors were dispersed off the airfield) and damaged four MiG-15s and were continued, at lesser intensity, every day the weather allowed.

While Fifth AF fighter-bombers tried to destroy KPAF aircraft as soon as they arrived, FEAF B-29s resumed their attempts close the North Korean airfields to any additional arrivals. Beginning at 0100hrs on 20 July, 15 Superforts (19th and 307th BWs) attacked airfields at Sinuiju and Uiju, with nine more (98th BW) attacking the next morning. At Uiju, the arriving MiGs were towed off the airfield and dispersed and hidden “in fields and hills adjoining the hard-surfaced highway between Uiju and Sinuiju”. The next night 18 B-29s “blanketed Uiju’s dispersal areas” with fragmentation bombs and incendiaries. While FEAF reconnaissance and intelligence estimated 21 MiG-15s

destroyed, No reported that only six jet fighters were destroyed in these attacks.

FEAF’s B-29s also hit, Namsi, Taechon, Sunchon, P’yongyang, and Saamchan, dropping 500lb (226.8kg) bombs to crater the runways and infields, and 100lb (45.4kg) fragmentation bombs and incendiary clusters to destroy aircraft. For example, Taechon was hit by 11 Boeings on the night of 23/24 July and again three nights later by four more.

While bad weather thwarted further Fifth AF operations in the northwest, in the east, beginning on 22 July TF77 launched three large strikes, hitting Yonpo, Wonsan, Hamhung, Sondok, Hoeryong, Hoemun, and Hyesanjin airfields. The weather finally relented the last day allowing FEAF to launch one last “maximum effort” to neutralize the KPAF’s airfields in the northwest while TF77 cratered five runways from Hyesanjin to Hamhung. Follow-up reconnaissance by 67th TRW showed “every airfield in North Korea was unserviceable for jet aircraft landings”. According to No, this was true for all except Uiju.

The Rush to Peace

The 1st FAD completed transferring its MiG-15s to Uiju on 22 July and the 2nd FAR pilots returned to Langtao to take over the jets of the 56th FAR, allowing that unit a well-earned rest. The visiting regiment manned 16 MiG-15bis at Alert Posture No. 1 (pilots in cockpits). According to Lt No, “I looked up and saw about six F-86s crisscrossing the sky above. They were not very high. We took off into that perilous situation that had destroyed many MiGs in the past. Two by two the MiGs rolled down the scarred runway and into the air.” One pair of MiGs returned immediately because Capt. Kim Jung-Sup’s landing gear would not retract, Kim leading his wingman, Lt No Kum-Sok, back to the runway for landing while the others climbed southwards in two or three formations to engage two flights of Sabres.

One of the American flights consisted of three F-86s (25th FIS/51st FIW) led by USMC Maj. John H. Glenn, Jr., (later NASA astronaut and US Senator). The fourth Sabre had aborted the mission due to mechanical problems, leaving Glenn with his wingman, 2nd Lt. Sam P. Young, Jr., and the second element leader, six-victory “ace” 1st Lt Henry Buttelmann. As Young later recalled, “We were about ready to complete our patrol over ‘MiG Alley’, with no activity, when [Glenn] spotted several MiGs below us. Evidently they had also been out on patrol and were headed north, back to their base at Antung [sic]. We immediately went after them and in the fight that followed, Major Glenn destroyed his third and Lieutenant Buttelmann shot down his seventh.” (Note 13)

“Shortly after the two MiGs were shot down, I spotted one below me and chased him to a very low altitude. With

the high speed I had gained in the pursuit, I almost overshot him. Since I was so close and we were at such a very low altitude, the radar gunsight would not 'lock-on', so I switched to fixed sight and gave him a quick burst. When those .50-caliber rounds hit him, they sparkled just like fireworks on the 4th of July. I later discovered that the residue of small pieces of metal from the MiG had come back and embedded in my windscreen; that's how close we were. This MiG pilot was very aggressive, but not very good. His only tactic was to break one way then the other as we skimmed through the mountains. My second burst caused an explosion, starting at the right wing root..."

From the MiG-15 parking area at Langtao airfield, Lt No had a "ringside seat" to this, the final aerial duel of the Korean War. "No sooner had I taxied the plane to the waiting mechanics than I saw a MiG-15 being pursued by an F-86 at close range just above the runway. The MiG was headed southwest lower than the traffic pattern when the Sabre opened fire. I could see the tracers crashing into the fuselage of the MiG, piloted by Lieutenant Su Chul-Ha. Too low to eject, Lieutenant Su attempted a crash-landing with his disabled plane but overshot the runway and flew into the ground at a high angle. His jet exploded as the Sabre climbed away."

Young reported, "I immediately rolled out to get my bearings and broke left toward the sea. I was still very low and slow and to my surprise, I flew right over one of the MiG bases just north of the Yalu River! I guess they were as surprised as I was, because I did not note any anti-aircraft fire. Perhaps they thought I was a MiG on a low fly-by. Anyway, I left there as quickly as possible and eventually joined up with my flight."

According to No, due to the FEAF's success in neutralizing North Korean airfields, "General Wang suddenly switched tactics. He decided it would be more practical to violate the truce than take further losses from bombings at Uiju... On July 26 and 27 everyone at Dandong [sic] – Russian, Chinese, North Korean pilots, mechanics, and commanding officers – worked around the clock dismantling and crating MiGs. On the night of the 27th, the field was lit like day by searchlights while we worked frantically in cool, drizzly weather." A PLAAF

history confirms. "At Andong, ground crews from three Chinese air divisions were mobilized to dismantle and crate MiGs and Il-10s. At the hour when the ceasefire went into effect, some one hundred crated planes had been loaded onto trains and river barges ready for shipment across the Yalu River."

Most of these went by train across the Yalu railroad bridge to sidings in Sinuiju and at the airfield, the marshalling yards packed with flatcars bearing crated MiG-15s providing a lucrative target for FEAF Bomber Command's last raid. According to one Russian history, "the final airstrike against Sinuiju airfield took place on 27 July, shortly before 2200hrs, when the truce was set to begin... a large group of B-29s heavily bombed the airfield with large bombs and napalm [sic], and burned up a large portion of the shipped MiGs will still in their containers."

Another 17 crated MiGs were sent across the river aboard four large barges. According to No, "About three hours before the deadline, my battalion was finished [dismantling and packing the MiG-15s] and large tractors loaded our crated planes onto river barges for shipment across the Yalu River. At 10 P.M., July 27, the effective hour of the cease-fire, I was in a mist on a long barge carrying five crates across the Yalu. Three other barges carried a dozen other crated jets and equipment. [We] arrived in North Korea the next morning, docking at a small harbor near a rail line."

The last mission flown by the KPAF during the Korean War was launched from one of the Andong-complex airfields at 2055hrs that evening, when two Tu-2s took off, crossed the Yalu River into their homeland airspace and landed at Uiju. (Although USAF communications intercepts also "suggest that three Il-28 twin-jet bombers and three MiG-15s took off from the Antung [sic] field at approximately the same time" there is no confirmation that they landed at airfields inside North Korea.) The cease-fire agreement – ending over three years of active hostilities – went into effect at 2200hrs that night.

Douglas C. Dildy (SAFCH #844) Albuquerque, USA.

End Notes

1. After 20-24 January 1953, to battle the USAF F-86s the PVO's 32nd IAD replaced the 133rd IAD at Langtao and Dabao airfields, augmenting the 216th IAD at Dadonggou and Dabao, which was tasked with attacking formations of UNC fighter-bombers. The 133rd was withdrawn to Shenyang-West to provide fighter cover for the forward airfields.

2. The exact numbers of Chinese MiGs and pilots lost are not known – the numbers provided here are the maximums – because the Soviet reporting of UAA losses differ from (always less than) the PLAAF history reporting its own losses and the Russians include KPAF losses, which are not definitively known.

3. During this three-month period the USAF lost ten Sabres and five pilots in combat with MiG-15s. Of these six F-86s are known to have been shot down by MiG-15s, resulting in four pilots becoming POWs; one was lost due to fuel exhaustion from fighting MiGs (pilot injured); and three from unknown causes (probably MiGs) while on combat

missions, with one pilot (Capt Floyd W. Salze) KIA.

4. Also rendered as “Kim Di-San” or “Kim Ji-Sang” in some Russian sources.



*Hero of DPRK Maj. Kim Chi-San
6 kills & 2 damaged, 28 March-20 June 1953*

5. These battles were fought against the USAF's 4th FIW. During the three-day period four F-86 pilots were credited with the destruction of five MiG-15s. These were 4th FIW Commander, Col. James K. Johnson (on 9 May), Maj. Foster L. Smith (335th FIS/5 victory shared with Fernandez on 10 May), Capt. Manuel J. Fernandez (334th FIS/1.5 victories on 8 and 10 May), and 2nd Lt Samuel J. Reeder (335th FIS/one victory on 9 May). The only F-86 loss during this period was from 16th FIS/51st FIW (50-620) was due to unknown causes; the pilot was uninjured.

6. KPAF MiG units flew 216 sorties in April, 96 sorties (down due to weather) in May, 398 in June, and 226 in July.

7. The F-86s “kills” of 19 July were credited to Soviet Maj. Semyon A. Fedorets (913th IAP) and PLAAF pilot Shen Hongjiang. The Soviets lost two MiG-15s shot down and one pilot (Snr. Lt. Nikolai P. Gerasimchuk, the last Russian pilot to die in the Korean War) killed that day; PLAAF lost none. KPAF losses that day are not yet known, but one Soviet history suggests that USAF

victory credits – minus two claimed against Russian MiGs over Dabao – are accurate. While no F-86s were lost in combat on 19 July, the next day the USAF lost two F-86s to MiG-15s: USMC Maj. Thomas M. Sellers (F-86E 51-2824) was shot down and killed over Dabao by two pilots from the Soviet 224th IAP and Maj. Stephen L. Bettinger (F-86F 51-12973) was shot down, reportedly by KPAF Maj. Kim Chi-San, near Andong and captured by the Chinese. Also that day, two F-86F fighter-bombers were lost to AAA/ground fire (one pilot MIA), one crashed on final at Kimp'o due to engine flameout (pilot mortally injured), and one mysteriously crashed into the sea – probably due to spatial disorientation – while on RESCAP covering a downed pilot (pilot killed).

8. Having led the 64th IAK through its toughest battles against the Fifth AF, on 24 April 1953, Lt. Gen. G. A. Lobov completed his “tour of duty” and returned to the USSR, being replaced by his deputy, HSU Maj. Gen. Sidor V. Slyusarev, for the duration of the conflict. It is not known if Lobov or Slyusarev headed the Soviet delegation attending the UAA-hosted “joint conference” on 27 March.

9. By the summer of 1953, the Soviet air forces had large inventories of old, obsolete MiG-15s and many obsolescing MiG-15bis excess to their requirements as they were rapidly being replaced by the new, much improved, MiG-17. As of 1 June, in addition to the 330 PLAAF and 125 KPAF MiG-15s, the Soviet units had 405 MiG-15bis at their Shenyang and Andong area bases, with another 330 MiG-15bis arriving in rear area Manchurian bases during that June. Most of these belonged to the 37th and 100th IADs which arrived from Xiansilipu airfield, near Dalian, on the Liaodong Peninsula (83rd SmAK) and Dadonovo AB, Yaroslavl Oblast, (56th IAK PVO) Moscow Military District, respectively.

10. The new airfields along the PRC border were Hoeryong (K-35), Chunggangjin and Hyesanjin (not numbered in the FEAF “K-Sites” airfield

designation system). The airfields under repair were Sinmak (K-20), Haeju (K-19), Mirim (K-24), Hamhung West (K-28), and Namsi and Taecheon (not numbered as “K-Sites” because they were never operational during the war).

11. The 351st OIAP completed its tour of duty in PRC on 18 February 1953 and returned to the USSR, being based at Gorelovo AB, near Leningrad, as part of the PVO-Strany's 44th IAD, upgrading to the MiG-17 the following year. Yefrimov transferred his MiG-15bis night-fighters to the arriving the 298th OIAP. The replacement unit, consisting of three squadrons, arrived on 15 February and began local familiarization and night intercept training flights with two squadrons stationed at Langtao and the third at the nearby Dadonggou airfield. This regiment started flying operational night intercept missions at the beginning of March.

12. According to USAF “Canoe” COMINT reports, on 16 July the 10th CAD flew 24 La-9s and 20 Il-10s from Kungchuling (now Gongzhuling), near Changchun, to airfield(s) in the Andong complex, with the 21 fighters deploying to Sinuiju the next day. Arriving in the Andong area the day prior were “three to six Il-28 twin-jet bombers and two Tu-2 conventional bombers.” The communications intercepted indicated that the bombers were positioned for “combat missions”, perhaps night bombing sorties planned to support of the CPVA/KPA's final offensive, which began on 12 July.

13. There is no record of the first two MiG losses in any Russian, Chinese, or North Korean accounts of the air war in Korea. While all official accounts of this final combat between F-86s and MiG-15s have this engagement occurring on 22 July 1953, Lt. No's autobiography says that it occurred two days later. Independent confirmation of weather precluding flight operations on both sides 24-26 July substantiate the fact that the battle occurred on 22 July, as the official histories from both sides attest.



A USAF map of North Korean airfields completed or under construction/repair in July 1953. Although this map shows all KPAF airfields as "unserviceable", Uiju was able to receive aircraft up to and through the cease-fire deadline, 2200hrs, 27 July 1953. Source: *The United States Air Force in Korea, 1950-1953*, by Robert Frank Futrell, page 682.



A Fighter for the World

The Mirage export customers: Part 1

[Editor's note: This article is an extract from Aviation Classics #17, and is reproduced here with permission of their editor, Tim Callaway. Heading drawing: A Brazilian Air Force Dassault F-103E Mirage IIIEBR. By Keith Draycott.]

Almost as soon as the Mirage III was in development, international interest in the aircraft was aroused by its potential, performance and relatively low cost. The licence production of the aircraft in Australia, Belgium and Switzerland and the story of the Israeli development of the Mirage will be covered separately, as will the South African developments. This article covers the seventeen countries who purchased the Mirage III and 5 from France, leading to a mass of different model designations as the aircraft was adapted to the customer's particular needs, truly making it a fighter for the world.

In order to cover the nations who operated the Mirage III and 5 in as straightforward a manner as possible, these have been arranged alphabetically rather than chronologically, as many countries purchased different models of both Mirage and their later derivatives at different times. I have, where possible tried to simplify or at least clarify some of the occasionally tortuous histories and developments of the aircraft with each air service, whether or not I have succeeded is another matter! The delivery dates quoted are usually the date on which the order was completed unless otherwise stated.

Abu Dhabi (United Arab Emirates)

Abu Dhabi placed an order for twelve Mirage 5AD single seat attack aircraft in September 1972, supplementing these with an order for two Mirage 5DAD two seat trainers in 1974. The neophyte Abu Dhabi Air Force (ADAF), now the largest element of the United Arab Emirates Air Force, lacked both training resources and pilots at the time of the purchase, so it was arranged that pilots from Pakistan would operate the aircraft and that Pakistan could lease the fighters in an emergency. With the arrival of the first two Mirage 5DAD two seaters, the training and pilot supply situation eased so in 1976 and 1977, one more Mirage 5DAD was purchased, along with three Mirage 5RAD single seat tactical reconnaissance aircraft. Later that year, a further fourteen Mirage 5EAD multi-role fighter aircraft were purchased, these being very similar to the Mirage IIIE with the Cyrano radar nose. These aircraft were used by the I and II Shaheen Squadrons based at Al Dhafra Air Force Base until, in 1989, the first of the Mirage 2000s arrived and began to replace them.

Argentina

The Argentinean Air Force (Fuerza Aérea Argentina or FAA) was searching for a new fighter toward the end of the 1960s. Competitive trials were held, from which the Mirage was selected and an order for ten Mirage IIIEA single seat fighters and two Mirage IIIDA two seat trainers was placed in October 1970. The first aircraft from this order flew after reassembly in Argentina in July 1973, and was followed by an additional order for seven more Mirage IIIEAs in 1977 which arrived in 1979. The second order had been placed because during 1977 tensions between Argentina and Chile had grown to the point that by mid-1978 a war seemed likely. This possible conflict highlighted the FAA's lack of ground attack aircraft and interest was shown in acquiring the Mirage 5. As will be described later in this magazine, Israel had completed 50 single seat and 10 two seat Mirage 5Js, called the Neshar, which had entered service with the Israeli Air Force in 1971. These aircraft had operated with great success as day fighters and ground attack aircraft, but were already being replaced with the more powerful Kfir, essentially a Mirage 5J with a General Electric J79 engine. The refurbished

Neshers were therefore available relatively cheaply, so in 1978 35 single seat and four two seat aircraft were ordered, known in Argentina as the Dagger A and B. During the Falklands War, the urgent need to replace the losses these aircraft suffered was met by the delivery of an additional ten Mirage 5P aircraft from Peru on June 6 1982. These were too late to take part in the conflict, and were blended into the Dagger fleet by being allocated the serial numbers of the aircraft that had been shot down. A further batch of 19 Mirage IIICJ single seat radar equipped interceptors and three Mirage IIIBJ two seat trainers were refurbished in Israel from aircraft they had in storage and delivered to Argentina by ship on December 18 1982. Two of the original order of Mirage IIIEAs had also been lost during the Falklands War, a loss made good by the acquisition of two ex-French Air Force Mirage IIIBE two seat trainers towards the end of 1982. Today, three units of the FAA, all based at Tandil Military Air Base in Buenos Aires Province, still operate the Mirage in its various forms. The 6th Air Brigade is made up of three squadrons. The 1st Fighter-Bomber Squadron have the remaining 7 Mirage 5Ps, which have since undergone an upgrade programme to become the Mirage Mara. The 2nd Fighter-Bomber Squadron operates 11 single seat and 3 two seat IAI Dagger airframes, now known as Fingers after their last upgrade. Interestingly, the upgrade programme had begun when the Falklands War broke out, and was aimed at equipping the Dagger with new avionics and a Head Up Display to bring them up to Kfir C2 standard and beyond. Since some of the equipment was of British manufacture and an arms embargo was in place up until the 1990s, the Finger upgrade programme was delayed. It eventually took place in several stages, finally reaching the Finger IIIB standard of today with the replacement of the intended British avionics with those of French manufacturer Thomson-CSF. The last unit is the 3rd Air Interceptor Squadron equipped with seven Mirage IIIEA single seat interceptors and a single Mirage IIIDA two seat trainer. It is unclear as to how many of these airframes are from the original French built orders, and how many are Mirage IIICJ airframes supplied via Israel.



An Argentine Air Force IAI Dagger A in its original scheme as delivered from Israel. (Fuerza Aérea Argentina)



The 2nd Fighter-Bomber Squadron of the Argentine Air Force operates the remaining IAI Daggers, now known as Fingers after their last upgrade. (Juan Carlos Cicales)



A Mirage IIIEA of the 3rd Air Interceptor Squadron of the Argentine Air Force. (Via Jose Matos)

Brazil

The Brazilian Air Force (Força Aérea Brasileira or FAB) selected the Mirage as their interceptor and ordered twelve Mirage IIIEBR single seat and four Mirage IIIDBR two seat trainers on May 12 1970. Pilots and ground crews were trained in France before the first aircraft of the order was handed over on May 31 1972, the Brazilian designation for the types being the F-103E for the interceptors and F-103D for the trainers. In 1978, four more F-103Es were ordered, along with two Mirage IIIBE two seat trainers to replace the losses of three of the original order. The two trainers were ex-Armée de l'Air aircraft, and given the designation Mirage IIIBBR, despite

being identical to the IIIDBRs previously purchased. In 1988, four more single seat Mirage IIIEs and two more two seat Mirage IIIBEs, again all ex-Armée de l'Air aircraft, were sold to the FAB. These were much modified aircraft with improved avionics and canard foreplanes, known as the Mirage IIIEBR-2 and IIIDBR-2 respectively. At the same time the remaining single and two seat aircraft from the original orders were upgraded to the same standards. These early Mirage aircraft were all intended to be replaced by the F-X fighter competition in the early 2000s. Delays to this project meant that, in 2005, twelve ex-Armée de l'Air Mirage 2000s were purchased as an interim solution and the earlier aircraft were retired. The Saab Gripen and Dassault Rafale are still the leading contenders to fulfil the programme in 2012.



One of the original batch of twelve Mirage IIIEBRs for the Brazilian Air Force. (Dassault)



A Brazilian Air Force Mirage IIIEBR-2 in a special scheme celebrating 30 years of the Mirage in Brazilian service. (Foto Reinor)

Chile

The Chilean Air Force (Fuerza Aérea de Chile or FACH) issued an urgent order for 16 Mirage 50 aircraft in July 1979, in the face of rising tension between Chile and Argentina. As already mentioned, the Argentinean Air Force had already acquired the Mirage IIIEA and was procuring the Mirage 5J or Nesher from Israel in quantity. The Mirage 50 was powered by the SNECMA Atar 09K-50 engine of greater thrust, improving the Mirage's take off and climb performance. The first batch of eight aircraft were ex-Armée de l'Air Mirage 5Js taken from the batch of 50 aircraft originally built for Israel before being embargoed and given to the French Air Force instead as the Mirage 5F. These were upgraded to Mirage 50FC standard and delivered to Chile in June 1980, with the pilots and ground crew being trained in France prior to the first flight in Chile in August. In 1982, Chile purchased six more brand new Mirage 50C single seat radar equipped fighters along with three two seat Mirage 50DC trainers. In 1984, the Empresa Nacional de Aeronáutica de Chile (ENAER, the national aeronautical company of Chile, formed from the Maintenance Wing of the FACH) began an upgrade programme for their Mirage fleet with the co-operation of IAI of Israel, who were offering a package of modifications based on their successful Mirage-derived Kfir fighter. Initial flight testing of a Chilean Mirage 50 modified with canard foreplanes began in 1986, the saw-tooth wing leading edge of the Kfir never being fitted to these aircraft. By 1988, the first aircraft had been extensively modified with new radar and avionics systems housed in an extended nose and air to air refuelling capability. Budgetary limitations made the upgrades a slow process, the second aircraft being delivered in 1992 and three more by January 1994. Thirteen of the single seat Mirage 50FC and Cs, as well as two of the Mirage 50DC trainers were upgraded to become Mirage 50CNs, the aircraft now all being known as the ENAER Pantera. These were the last Mirage variants in Chilean service, replaced by the F-16 Fighting Falcon, the final aircraft being retired on December 31 2007.

These were not the last Mirages purchased by Chile however. Prior to this, the Belgian Air Force had retired their fleet of licence built Mirage 5BA single seat and BD two seat aircraft in September 1991. As already mentioned these differed from their French counterparts in having mostly American built avionics. Belgian manufacturer SABCA (Société Anonyme Belge de Construction Aéronautique) began an upgrade of 15 of the Mirage 5BAs and five of the Mirage 5BDs, a programme called MirSIP (Mirage System Improvement Program). This replaced all the aircraft's radios, avionics and computers, including a new Head Up Display, HOTAS configured cockpit and navigation and weapons delivery system. A new Martin Baker zero/zero ejection seat was fitted, as was a single

point pressure refuelling system. Chile elected to buy these modified aircraft in July 1994, along with four unmodified Mirage 5BRs, the Belgian single seat reconnaissance variant, and an additional Mirage 5BD two seat trainer, all from retired Belgian Air Force stocks. These last five aircraft were intended to replace the Hawker Hunter FR Mk 71s then in service with Chile in the reconnaissance role, the sole two-seater operating as the conversion trainer for this type. Once the MirSIP modified aircraft arrived in Chile, they were further adapted by ENAER with the assistance of IAI with the addition of a GPS and VOR/ILS navigation systems and the wiring to accept the IAI Python and Shafir air to air missiles. In this form, the new Mirages were known as the SABCA Mirage 5M Elkán, the unmodified reconnaissance aircraft retaining their original designations. All of these aircraft were retired in 2006.

The very last Mirage variants purchased by Chile were five ex-South African Air Force (SAAF) Atlas Cheetah E airframes, described earlier in this magazine. These had been retired by the SAAF in 1992, but in 2003 Chile bought five of the mothballed aircraft to act as a source of spare parts for their very similar ENAER Pantera. Discussions regarding the acquisition of a further seven airframes were begun but never completed before the Chilean Mirage fleet was retired.



Fifteen ex-Belgian Air Force Mirage 5BAs and five Mirage 5BDs underwent a programme called MirSIP. Once the MirSIP modified aircraft arrived in Chile, they were further adapted by

ENAER with the assistance of IAI to become the SABCA Mirage 5M Elkán, seen here in their single and two seat forms. (Juan Carlos Cicales)



One of the two the Mirage 50DC trainers upgraded to become a Mirage 50CN, the aircraft being known as the ENAER Pantera. (Fuerza Aérea de Chile)



A row of the SABCA Mirage 5M Elkáns of the Chilean Air Force. (Pablo Gonzalez collection)

Colombia

In 1970, the Colombian Air Force (Fuerza Aérea Colombiana or FAC) ordered a total of 18 Mirages from Dassault to replace the Canadair Sabres still in service. The order was made up of 14 single seat Mirage 5COA ground attack aircraft, two Mirage 5COR reconnaissance aircraft and two Mirage 5COD two seat trainers, the first of these, a Mirage 5COA, was delivered in September 1971. In 1981, Colombia was looking to replace the Lockheed T-33 Sliver Stars then in service and ordered twelve ex-Israeli Air Force single seat Kfir C2s supported by one two seat Kfir TC2 trainer. Financial problems and a US veto of the order delayed the delivery of the first Kfir

C2 aircraft until April 1989, but since then all the aircraft have been upgraded to the Kfir C7 and TC7 standard with the more advanced engine, computers, avionics and radar of that version. Part of the deal was that the existing Mirage 5COA fleet would also be refurbished and upgraded to Kfir C7 standards, aircraft now known as Mirage 5COAMs for the single seat aircraft and Mirage 5CODM for the two seaters. With only two losses in 19 years of operation, the Kfir was popular for its reliability with the FAC, who used the aircraft in low level interdiction mission against insurgents. So much so that in 2008 a further eleven Kfir C7s and three more Kfir TC7 trainers were ordered, which again included an upgrade package for the new single seat aircraft and those of the existing fleet to be converted to Kfir C10 and C12 standard, while the two seaters became Kfir TC10s. The major difference between the Kfir C10 and C12 standards is that the latter lacks the nose mounted Elta EL/M-2032 radar. The last of the Mirage 5COAMs were retired in 2008 and the 5CODMs in 2010. The remaining 20 Kfirs owned by the FAC are expected to remain in service for the foreseeable future.



A Mirage 5CODM, a Mirage 4COD upgraded to Kfir C7 standards, of the Colombian Air Force. (Javier F Topper)



One of the first Mirage 5COA ground attack aircraft delivered to the Colombian Air Force in 1971. (Dassault)

Ecuador

In 1976, the administration of President Jimmy Carter blocked a deal between Israel and Ecuador to purchase ten new build Kfir C2s. Since they could not have the aircraft they wanted, in the interim the Ecuadorian Air Force (Fuerza Aérea Ecuatoriana or FAE) purchased eighteen Mirage F.1 fighters from Dassault. With the lifting of military export restrictions in 1981, Ecuador went ahead and purchased ten Kfir C2s from IAI, the first of which were delivered in March 1982. These aircraft were to see action during the 1995 Cenepa War between Ecuador and Peru. A further purchase of two Kfir TC2 two seat combat trainers was followed in 1997 by an order for two more Kfir C2s, a deal which included bringing the FAE Kfir fleet up to Kfir C10 standard using the Kfir 2000 programme with its modern avionics and radar as a basis for the upgrade. Altogether eighteen Kfirs were delivered between 1982 and 2000, five have been lost in that time, and of the remaining twelve single seaters, eight have been fully upgraded to C10 standard, known in the FAE as the Kfir CE. When Venezuela retired their Mirage 50EV and 50DV fleet in 2007, six airframes were donated to the FAE, three of each type. These were all delivered in 2009 and six of these will remain in service up until 2014, using four additional airframes as a source of spare parts. Most recently, in December 2010, a contract was signed between Ecuador and South Africa to purchase ten single seat Atlas Cheetah Cs and a pair of two seat Cheetah D aircraft. The Cheetah was a South African development and upgrade programme based on their Mirage IIICZ aircraft and is described earlier in this magazine. The South African Air Force retired the Cheetah C and D fleet in 2008, but carefully preserved the airframes. Ecuador purchased the Cheetahs to replace their ageing Mirage F.1s, the deal including a five year maintenance contract between the FAE and Denel of South Africa. Deliveries began in April 2011.



A pair of Kfir CEs of the Ecuadorian Air Force, showing the extended radar nose. (Fuerza Aérea Ecuatoriana)

(To be continued)



This Argentine Farman is on display at the Museo Aeronáutico in Morón. It is one of the first Argentine military aircraft. The country's air force was initially formed in 1912 at Base Aérea Militar El Palomar. It has the Argentine flag as an insignia on the fin, and unusual early roundels on the undersides of the upper wings.



This Do-228NG of the Bangladesh Navy sports interesting roundels and fin flashes, both of which incorporate white in addition to the normal red and green colors. It has been upgraded by RUAG Aviation, with a modern glass cockpit and 5-bladed propellers.



The Republic of Bashkortostan, also known as Bashkiria, is a federal subject, or republic, of Russia. It is the most populous Russian republic. This An-74 wears the Bashkiria flag on its fin, in addition to the Russian flag on its fuselage.



This is quite a rare close-up of the single AS.350B Ecureuil in service with the Comorian Security Force, used for presidential and VIP transport. Later submissions will include a Comorian C-47, and a Comorian Let-410, each featuring alternate national markings.



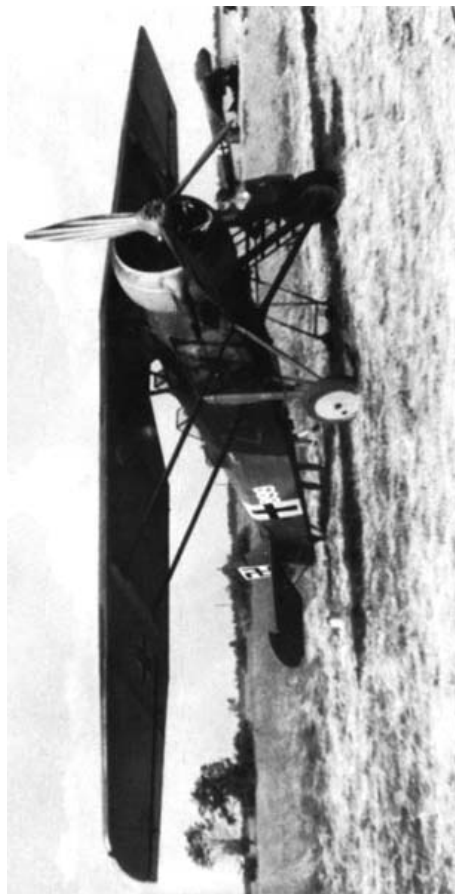
This is an extremely rare image of a UH-1D of the Garde Cote Police Nationale d'Haïti. The Haitian Coast Guard is an operational unit of the Haitian National Police. It is one of the few law enforcement organizations in the world to combine water policing and coast guard duties while remaining a policing unit. It operates primarily as a law enforcement agency, with secondary responsibilities in search and rescue.



An Mi-8 of the Russian republic of Tatarstan, with the republic's name in Cyrillic above the cabin windows. Also note the Tatarstan flag insignia on the tail rotor fin.



This An-26 of the Tajikistan Air Force wears the customary red stars, but does not sport the usual national flag insignia. Instead, untypically, it features the title TAJIK AIR FORCE just above the fuselage color separation line.



A few Anbo IVs served with the Latvian air force under command of the German Luftwaffe. This uncommon image shows one marked with standard Luftwaffe crosses on the undersurfaces of its wings, a black inverted Latvian ugunskrusts (conveniently similar to the swastika) on its tail, and a black fuselage cross modified for Latvian service.

All photos via Greg Kozak. Greg welcomes additional photos for use in this series. Send photos, with captions, to gkozak2@verizon.net.

John Charles Robinson in Ethiopia

[Author's note: The presentation of the two articles on earlier Ethiopian aviation and the bit on the pertinent decals in SAFO #151, made a truly excellent tie-in. But it seemed a bit ironic to see Jose Fernandez state, "There was also an African-American pilot, Robinson, commissioned in the United States, whose activities are rather uncertain." That must have been written long before the book on Robinson, first mentioned two issues earlier, SAFO #149 (July, 2014), was in circulation: *The Man Called Brown Condor*, by Thomas E. Simmons, (Skyhorse Publishing, New York, 2013). It is the biography of John Charles Robinson, and the following is a summary of the facts as culled from this book.]

John Charles Robinson (1903-1954) was quite a rarity in the extremely-racist deep south and mid-west of the United States at that time: an African-American pilot, ace mechanic, avionics and flight instructor, and entrepreneur. In 1935, he was recruited by Emperor Haile Selassie's nephew, Dr. Halaku Bayen, to join the Ethiopian air service with the rank of Captain. Dubbed "The Brown Condor" by the American press, Robinson, upon arrival in Addis Ababa, was immediately confronted by another non-Ethiopian black pilot, Hubert Fauntleroy Julian, the self-proclaimed "Black Eagle." The press loved it, but it resulted in Julian being banished from Ethiopia for the second time. (See note below.)

The book recounts Robinson's flying a Fokker Trimotor (F.VII) to familiarize himself with the rugged conditions of that land, as well as the state of Ethiopian aviation at that time, the foreign (European) and native players therein, and the ever-growing threat of Mussolini's invasion. There are at least 90 pages devoted to the second Abyssinian War.

With the situation becoming more critical each day, and knowing that his European pilots would not be allowed by their governments to fly during that war, Selassie promoted Robinson to Colonel, granted him citizenship, and gave him command of the Imperial Ethiopian Air Corps, replacing French pilot Paul Corriger. As it was, Corriger and fellow Frenchman Demeaux stayed on after hostilities started, not leaving until near the end of 1935.

The Ethiopian Potez 25s, all unarmed, were utilized for daily recon and courier missions flown by Robinson and the Ethiopian pilots. It was Robinson who observed, and reported to the Emperor, the massed Italian forces crossing the Ethiopian/Eritrean border in Sept. 1935. Robinson's Potez frequently came under fire from Italian Ro 37s, once narrowly escaping with a wounded arm. (Simmons states that Robinson was wounded three times; perhaps one of those times was the poison gas injury he incurred, on the ground, during one of Mussolini's "terror attacks" against the civilian population.)

It is not completely clear when the Beechcraft Staggerwing arrived in Ethiopia, but the acquisition had been recommended by Robinson to circumvent the arms embargo. He helped assemble the plane and test-flew it. It became Selassie's personal plane. Robinson would use it to fly the Emperor observe the front lines. On May 4, 1936, two days after Selassie and the Imperial court fled Addis Ababa on a French train to Djibouti and from there onto a Royal Navy ship. Robinson flew the Staggerwing to Djibouti, where the French took it over. (Simmons claims that the plane ended up in the Spanish Civil

War, survived, and after WWII was returned to the US. However, Fernandez states that a second Staggerwing was embargoed in France. So, which plane was which?)

In 1936, Robinson returned to the U.S., to a hero's parade and other welcome-ceremonies and events in Chicago. After that he founded the John Robinson Air College, the Challenger Air Pilot's Association, and was affiliated with the renowned Tuskegee Institute. (Earlier he had helped to found the first black airport in the U.S.).

Following the Pearl Harbor attack in 1941, Robinson volunteered for the Army Air Corps but was told he was too old for a combat pilot. Instead, he was awarded a position (as a uniformed civilian contractor?) to further develop the Army Aviation Mechanics Training programs.

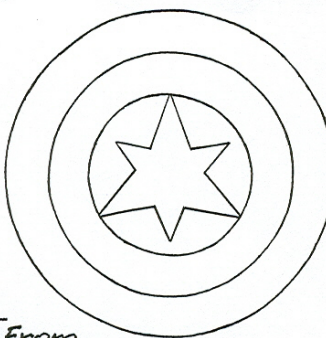
Upon fully regaining Ethiopia through Allied actions in October 1943, Emperor Selassie urgently requested Robinson to return, with other African-American pilots and mechanics, to rebuild his air force. On a semi-clandestine flight by a "civil-marked" RAF Dakota, delivering the Robinson team to Egypt, he was allowed to co-pilot the plane, flying it about a third of the trip from England. In Ethiopia, the only aircraft for training able to be scrounged up was a (ex-USAAC?) twin-engine Cessna UC-78, certainly not ideal for basic flight instruction. In spite of that, new Ethiopian pilots and mechanics did thereby get their start with that Bobcat.

In 1948, a violent confrontation with the returned Swedish benefactor Count von Rosen (who, with the Ethiopian rank of Major, reportedly resented being outranked by Colonel Robinson), led to the diplomatic pressure that forced Robinson to resign as commander of Selassie's air arm. It was the only way that the Swedish government would agree to continue supplying aircraft to Ethiopia. The Emperor persuaded Robinson to stay in Ethiopia, to further develop EAL/Ethiopian Airlines (for which, after his pilot "training" on the RAF Dakota in 1944, he continued to fly its DC-3s), head the Duke of Hara's aviation school, and advise at the Ministry of War. In March 1954, Robinson died in a fiery crash of his Stinson L-5 Sentinel while returning to Addis Ababa from a medical mercy mission. After a National Hero's funeral, he was buried in the capital's Holy Trinity Cathedral.

Note: Hubert Fauntleroy Julian, the "Black Eagle," was from the island of Trinidad, and claimed to have learned to fly in the Canadian Air Force. He also seems have been a somewhat-flamboyant aerial showman and was under a fraud investigation by the US government. In 1930, Julian was in Ethiopia flying for Ras Tafari, Regent and future Emperor. A de Havilland Moth had been sent as a gift from England to the future Emperor, and was meant to be unveiled during the coronation ceremonies. Even though the future Emperor had expressly forbidden him to do so, Julian flew the Moth - and crashed it. Julian had his flying-privileges revoked and was expelled from Ethiopia. He was later allowed to return as an infantry officer as the war loomed, only to be kicked out again upon his run-in with the newly-arrived Robinson.

Ted Koppel (SAFCH #118), USA.

ETHIOPIAN EXCERPTS*



GREEN
YELLOW
RED
with
YELLOW
STAR

Partially obscured
marking (in
black?)

Position of Imperial
Lion of Judah
insigne

[From
color illustration
in the book.]

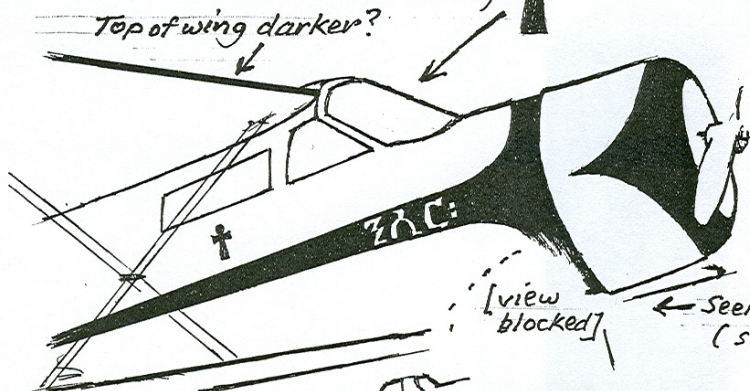
Ankh below
cockpit
(details,
if any,
unclear)

On nose
Junkers

Black
on metal
finish

[view blocked]

Junkers W33c (1936)



ገረጽ

Letters
in white

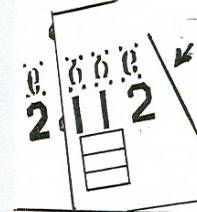
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Seemingly white aircraft with dark
(semi-gloss) trim.

Emperor Selassie's
Beechcraft B17R
Staggerwing

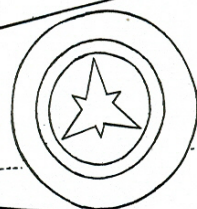
[Photo not dated]

Book claims
that after
reassembly
(in 1935?),
Staggerwing
was painted
same green
as other
aircraft-
and military
markings
added.

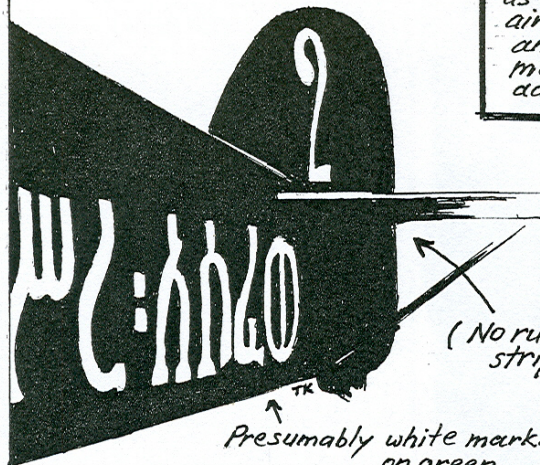


Fin flash:
GREEN
YELLOW
RED

Note
proportions
of yellow ring
and star



Aircraft light color overall



Anti-
glare
panel

(No rudder
stripes)

? 3 or 4 lines of text
under cockpit

[fuselage
view
obscured]

Presumably white markings
on green

Potez 25 (1935)

Cessna UC-78 Bobcat (1940s)

* Fragments from photos in THE MAN CALLED BROWN CONDOR

T. Koppel, 2015



Mezek a Turbina: Messerschmitts in Czechoslovakia, by Bohumir Kudlicka. MMPBooks White Series No 9126. Soft cover. 112 A-4 size pages. English text. (2014) www.mmpbooks.biz. £ 19.99.

As a history buff and modeler, I've always been interested in the resurrection of the Czechoslovak air force after the end of WW2. Czech airmen returning from the West brought with them their Spitfires, Mosquitoes, and B-24 Liberators. When the hoped-for flow of modern aircraft from the West failed to materialize, the ever-innovated Czechs reconditions aircraft that were left by the Germans (Bf 109, Ar 96, Si 204). These were soon replaced by aircraft provided by the Soviets (Yak-23, MiG-15). This book provides the details of this period using the Bf 109 and Me 262 as case studies.

Called Mezek because it was "stubborn and hard to control" the Jumo-powered Bf 109G were built in Czechoslovakia from Luftwaffe airframes and engines.

The main sections of the book are:

- (1) Production of Bf 109s in Czech Territories. (7 pages 18 photos)
- (2) Renewal of the Czechoslovak Air Force. Subsections: C-10; C-210 alias S-199; CS-199. (34 pages 60 photos)
- (3) In Service. Subsections: Police Air Force; Air Force; Colours & Markings; Museum Specimens; Technical Description. (12 pages 21 photos)
- (4) Turbines – Avia S-92 and CS-92. Subsections: Production of the Me 262 in

the Protectorate Böhmen und Mähren; Genesis and Development of the S/CS-92; Subsections are: "Turbines" for Yugoslavia; Short Service; Colours; Museum Specimens; Technical Description. (19 pages 39 photos)

(5) The Avia S-199 in Israel. (22 pages & 18 photos)

There are 11 pages of 1/48-scale multi-view drawings (5 pages S/CS-199 and 6 pages for the S/CS-92), and 16 pages of color profile drawings (8 pages for the S/CS-199, 2 pages for the S/CS-92, and 6 pages for the Israeli S-199). All the color profiles are full-page and many are 4-view showing port, starboard, top, and bottom plan views.

Anyone with an interest in this period of aviation history will enjoy this well-written and well-illustrated book. Obtain your directly from the publisher. I'm buying the review copy for myself. It will have an honored place in my library.

[Editor: During the 80s and 90s, my Czechoslovakian friends sent me many photographic prints of Czechoslovakian Mezek and Turbina. Most of these same photos are in the new MMP book, so I have no further need for them. Before I throw them away, I would like to offer them for free to any SAFCH member who would like them. If you're interested, contact me at safo@redshift.com.]



La Force Aérienne d'Israël de Suez la Guerre de Six Jours. Ciel de Guerre #26. 84 A4 pages. Soft cover. Artipresse. Website: artipresse.com..

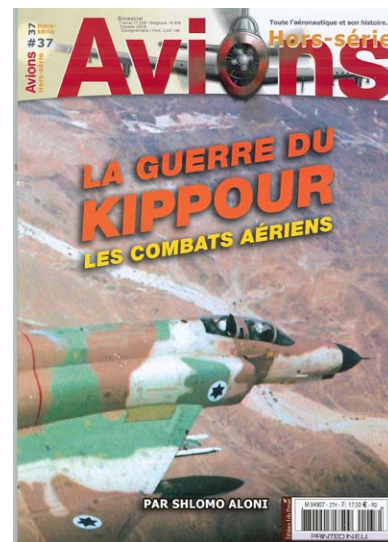
The Ciel du Guerra series has covered the Israeli air force twice before: the War of Independence (Ciel de Guerre #17) & the 1956 Sinai Campaign (Ciel de Guerre #20). Now, in Ciel du Guerra #26, José Fernandez, describes the air combat during the 6 Day War of June 1967.

The text is entirely in French, but the illustrations, tables, and maps make this volume accessible to those with little knowledge of the French language.

There are 69 color profiles [Israel: Meteor (1), Magister (3), S-58 (2), Vautour (7), Super Mystere (5), Mirage III (4), Noratlas (1), C-47 (1), KC-97 (1), C-45 (1), Mystere IVA (4), & Ouragan (2); Egypt: MiG-21 (1) & MiG-17 (2); Syria: MiG-17 (2) & MiG-21 (1)], and 8 color multi-views Magiater (3). Vautour (1), Super Mystere (2), Mystere (1), & Ourang (1)].

The 12 tables are: Mirages lost before 5 June 1967; Israeli AOB on 5 June 1967; Arab AOB on 5 June 1967; Egyptian AOB; Iraqi AOB; Jordanian AOB; Lebanese AOB; Syrian AOB; Arab losses by type; & Israeli losses to all causes and Israeli victories by date and type.

The map shows the Israeli advance in the West Bank, on the Golan Heights, and to the east bank of the Suez Cannel.



La Guerre du Kippour: Les Combats Aériens, by Shlomo Aloni. Avions Hors-série #37. Lela Presse. www.avions-bateaux.com. Soft cover. 104 A-4 pages with 235 photos and 20 color profiles. (2014) € 17.50.

This book describes, from the Israeli

perspective, the aerial combat of the five major aircraft types flown by the IDF (A-4, F-4, Mirage 5, Mirage III, & Mystere B.2) during the Yom Kippour War. "On October 6, 1973, Arab forces launched a surprise attack against Israel. In the north, Syrian forces, soon aided by Iraqi and Jordanian units, tried to re-conquer the Golan. In the south, Egyptian forces launched an assault on the eastern bank of the Suez Canal. The Israeli Air Force attempted, with varying degrees of success, to win mastery of the sky, but the losses would be heavy. Shlomo Aloni describes the air battles of this war in a very complete narrative with many photos, color profiles, and lists of victories and losses of the Israeli Air Force"

The text is in French, but the captions for the photos and color plates are in both French and English. These captions are lengthy and very informative. The 20 color plates include 4-view drawings of all 5 major aircraft types as well as additional port and starboard views.

Throughout the book, the author refers to aircraft types by their Israeli name, so the reader may want to make a "cheat" sheet listing the more familiar identifications: Ahit (Eagle) A-4; Kurnass (Sledgehammer) F-4; Nesher (Vulture) Mirage 5; Shahak (Skyblazer) Mirage IIIC; and Saar (Storm) Super Mystere B.2.

The book ignores the less glamorous roles played by the helicopter and transport units of the IDF, and nothing is said about the Arab side of the war. However, if have an interest in the Israeli/Arab wars, but you're not fluent in French, you will still enjoy this book. The photos and color drawings, their English captions, and the relatively inexpensive price will make it a welcome addition to your bookshelf.

The book is available directly from the publisher, or from the SAFCH Sales Service (safo@redshift.com) for \$17.00 plus postage.



Ex USAAF Aircraft 1945, Andrzej Morgala. Polish Wings #5. A-4, 80 pages, softcover. (2011) English text entirely. Produced by Stratus in Poland and available from MMPBooks. ISBN 987-83-61421-11-5. \$25.00.

"Ex-USAAF aircraft purchased by Poland immediately after WW2 were much needed. They enjoyed a good opinion among airmen, but were largely hushed over by the authorities who issued exaggerated statements denouncing the low quality of these aircraft. It took many decades, and substantial political changes, to make it possible to present the full history of these aircraft in Polish aviation." With this introduction, the author begins the story of the Cubs, Dakotas, and Bobcats in Poland.

The Piper L-4 gets the lion share of the coverage – 47 pages. In 1947, between 131 to 142 (according to various sources), Cubs were purchased by Poland from USAAF surplus stocks in Germany for between US\$150 and US\$550 depending on their condition. The history of the individual Polish Cubs is discussed in text along with 117 photos, 19 color profile drawings, 4 color multi-view drawings, and a 5-page table listing 118 Cubs by: Polish SP- registration, version, USAAF s/n, dates registers & struck off, and notes on operators. No Cubs served with the Polish AF, but the civilian Cubs carried a vast number of colorful schemes.

Twenty pages are used to cover the 17 C-47A Dakotas that served in the Polish AF and the 13 that served with LOT Polish Airlines. Besides the text, there are 36 photos, 12 color profiles (3 PAF & 9 LOT), and 2 tables, one for the

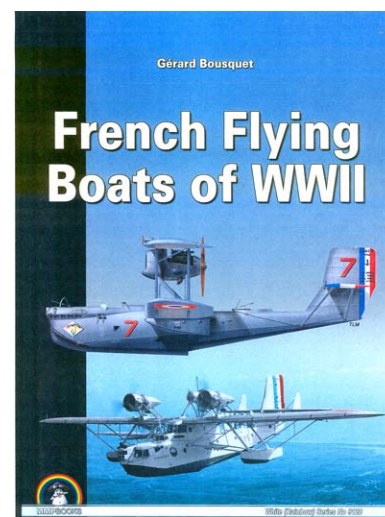
PAF aircraft listing the USSAF s/n, tail number, years of operation, & notes, and the other for LOT aircraft listing the USAAF s/n, SP- registration, dated taken on charge & struck off, and notes. This chapter covers only ex-USAAF Dakotas and not the shorter-range Russian-built Li-2.

The 14 Cessna UC-78 Bobcats are covered in 8 pages with 13 photos and 6 color profiles.

The final 3 pages cover the Stinson L-5 Sentinel (2 photos & one color profile) and the Taylorcraft L-2A Grasshopper (3 photos & a multi-view color drawing).

The book is well produced with excellently-reproduced photos and large beautiful color drawings. If your looking for color schemes for aircraft carrying the Polish "checkerboard", you'll be disappointed – all aircraft are civilian (SP-) except for the PAF Dakotas. However, the text gives a good exposition on the state of Polish aviation in the years immediately following WW2, and the modeler will find the colorful Cubs, Dakotas, and Bobcat very tempting.

Order directly from: MMP Books, 3 Gloucester Close. Petersfield, Hampshire GU323AX, UK; rogerw@mmpbooks.biz; www.mmpbooks.biz.



French Flying Boats of WW II, by Gerard Bousquet. Published by MMP Books White Series 9120. 232 Pages 12 inches by 8.5 inches. Price UK £40.00

I seem to spend a great deal of time singing the praises of MMP Publications! I can assure those of a suspicious turn of mind that I am not employed by the publisher. I just rate their publications very highly!

Although various French publishers have produced excellent books about French naval aircraft this is the first one, that I am aware of, that is in English throughout.

Modellers should be aware from the outset that this book is solely concerned with flying boats there are no floatplanes to be seen. And those with an aversion to biplanes with complicated rigging should invest in tranquilisers from the outset!

The book commences with several short chapters discussing French naval aviation at the outset of WW2, various classes, proposed programmes, and the order of battle in 1939.

This leads to 210 pages of aircraft from Breguet to SNCAO with details of construction, usage, etc. It starts with the Short Calcutta which evolved into the Breguet 521 Bizerte, but everything else is French.

As in other books in this series, there are plenty of clear photographs mostly in association with excellent artwork. As I am always moaning the artwork has no scale, thus all sizes of aircraft fit the vertical page size however most of the aircraft have a small 3 view drawing with a scale to help the struggling modeller

It should be noted that many of the larger 'boats were taken up from Air France service and were only built in small batches so there is plenty of room for confusion!

Mostly the large 'boats were used to connect with France's far flung empire before and after the 1940 invasion so 'Vichy stripes' abound. There are also Luftwaffe colours and markings as several aircraft, notably the LeO H-246, were used by the Germans . .

Colours are given in French and English - though FS numbers would have been a help

Again recommended highly. Now where is part 2 of the Hungarian Fighters book?

Malcolm Barratt (SAFCH #1716), UK.

[Editor: The following four books were recommended by Jean Yves Goffi (SAFCH #427). Since these books were not available to me, I copied the relevant parts from their respective Websites.]



Bristol Blenheim: The Yugoslav Story, by Aleksandar Ognjevic. Hard cover. English text. 160 A4 pages. 223 photos. 32 color aircraft drawings. www.leadenskybooks.com. ISBN: 978-86-917625-0-6.

Despite the title, this book covers more countries than only Yugoslavia. chapter list indicates: (1) Golden Years; (2) Leaden Sky (3) Royal Comrades in Arms (4) Serving the "U". (5) Romanian Birds. (6) In Hungarian Service. (7) With Blue Swastika. (8) Local Red Stars. (9) Camouflage and Markings.



La Aviacion Militar Dominicaca en la Era de Trujillo: Part 1 1930-1945, by Luis P. Puesan. 241 pages. Spanish text. 80 photos & 22 illustrations. Website: www.puesan.com/amd-book.. US\$ 38.95.

This is the first book in a series of two about Dominican Military Aviation during the dictatorship of Generalissimo Rafael Leonidas Trujillo. This first part covers the first 15 years of military and

civil aviation in the Dominican Republic. A detailed first chapter covers the historical background of aviation in the Dominican Republic before the beginning of the Trujillo dictatorship.

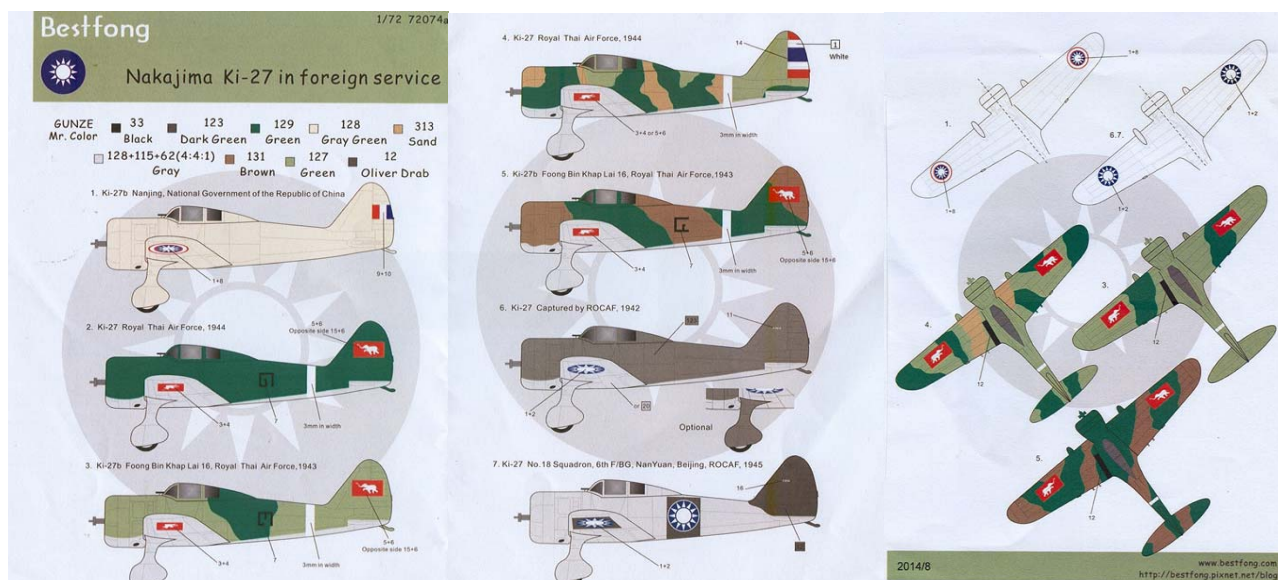
La Aviacion Militar Dominicaca en la Era de Trujillo: Part 2 1946-1961, by Luis P. Puesan. 286 pages. Spanish text. Website: www.puesan.com/amd-book.. US\$ 44.00.

This book is the second and last part of the series covers Dominican Military Aviation from December 1945 to November 19, 1961, the day the of the Trujillo family left the country. It tells the history of the Dominican military aviation, especially the events of the 1950s when the Corps of Military Aviation Dominic was at its peak. It contains some never-before published photos and dozens of drawings of military aircraft used in the Dominican Republic during the dictatorship.



Die verbotene Luftwaffe 1918-1938: 20 Jahre Österreichische Militärflugzeuge, by: Rupert Reisinger. Hardcover. 276 pages. German text. (2014). Verlag Brüder Hollinek. €59.00.

This history of the Austrian air forces of the 1st Republic provides an insight into a fascinating chapter of Austrian military history. The book contains over 500 illustrations, facsimile of records and aircraft plans. The book is equally interesting for all history buffs, aviation enthusiasts and modelers. All Austrian military aircraft during the period from November 1918 to April/May 1938.



Nakajima Ki-27 in Foreign Service. 1/72-scale decals. Bestfong #72074.

This is one example of the excellent decals produced by the Taiwan-based Bestfong company. While most of their decals feature aircraft in Republic of China (ROC) markings from the 1930s to the present, many include markings for at least one other country – and there are several decals devoted to the aircraft of other countries, such as the one reviewed here.

The instruction sheet for the Ki-27 in foreign service (reproduced here in its entirety) provides color profiles for six Ki-27: one Nanjing National Government, four Thai, and two Chinese.. The decals consist of 2 sheets (110 mm by 40 mm) providing all the national insignia and markings to complete two Thai, one Nanjing National Government, and two Chinese aircraft. The registration is perfect, and the colors are dense. Separate white decals are provided for all markings.

These decals are a real bargain since there are enough decals to complete four Ki-27s for only 5 €. They are highly recommended and are available directly from Bestfong. See their website www.bestfong.com for ordering information. Send

orders in English and they will respond with the total cost including shipping. Payment by PayPal only (NTD or Euro)

Bestfong Decals

Editor: A friend informed me of a website, bestfong.com. It turned out to be one of the best websites I've ever had the pleasure of visiting – well organized and illustrated with color reproductions of their amazing list of available decals – most of which will be of great interest to modelers

Main categories are: (1) ROC airplanes 1930-1950; (2) ROC (Taiwan) AF 1945-2000; (3) ROC (Taiwan) AF 1980 – now (in service); (4) ROC Army, Navy & others; and (5) Other Airplanes (1950-now).

Examples of 1/72-scale decals for ROC aircraft include; 1/72 decals: P-26 3.4 €, Gladiator 3.7 €, Hs-123A 3.1 €, B-24M 3.1 €, PBV-5A 4.3 €, Mosquito 4.6 €, Yokosuka P1Y 5.2 €, Lockheed F-5A 3.4 €, P-47D 5.6 €, etc. Among the decals for non Chinese aircraft are such gems as a North Yemen Northrop F-5E.

Many Bestfong decals are available in 1/72, 1/48 and 1/32 scale. All small-air-force enthusiasts and modelers, are encouraged to visit this website. You won't be disappointed.

Antarqui Decals

Our friends at **Antarqui** have released three new decal sets: (Uruguayan Grumman Avengers (2 aircraft in 1/72 scale); Brazilian Avengers (3 aircraft in 1/72-scale); and a mixed-scale set of South East Asia Grumman Bearcats (French aircraft in Indochina (1/48 scale and Thai aircraft in 1/72 scale. These decals are in the high quality we have come to expect from Antarqui: perfect register, dense colors, and all necessary markings (national insignia, unit emblems, code letters, serial numbers, etc.) to make allaircraft featured in the sets. These markings are printed on a background that matches the corresponding area of the aircraft. This allows the modeler to avoid cutting the decals around complicated markings, such as the naval anchors of the Brazilian and Uruguayan aircraft. However, it does require careful matching of the background paint. If you have not tried Antarqui's decals, you will find them refreshing.



Brazilian Avengers, 1/72 decals.

Antarqui Decals, 757 Emory St. #106, Imperial Beach, CA 91932-2231.

This is a beautiful decal set featuring three Brazilian Grumman Avengers in the amazingly difference color schemes: (1) 'N-502' (70 mm by 75 mm) medium sea blue over sea gull grey. (2) 'N-501' (85 mm by 70 mm), sans turret, in overall light grey with red cowling and wingtips, and (3) '3' (50 mm by 70 mm) in overall sea blue green.

The decals for each Avenger everything needed, including national insignia (roundels for these navy aircraft), fin stripes, serial numbers, individual aircraft numbers, "Marinha" inscriptions, and anchors.

I doubt if the average modeler will want to build all three Brazilian Avengers (having already built the Uruguayan Avenger with the decals reviewed above), but it will be a temptation not to build at least two.

These decals can be obtained directly from Antarqui or from the SAFCH Sales Service (safo@redshift.com) for \$9.00 plus postage.



Uruguay Avenger. 1/72-scale decals. Antarqui, 757 Emory St. #106, Imperial Beach, CA 91932-2231.

Antarqui begins a new series of decals with a set that includes the choice of two Uruguayan Avengers: (1) 'A-501' in overall Sea Blue, and (2) 'A-554' in Sea Blue over Light Grey.

The decals for "A-501" measure 70 mm by 55 mm, and those for "A-554" 55 mm by 60 mm. Both decals consist of roundels, fin flash, and anchors. '501' has the AVIACION NAVAL inscriptions, but no indication on the full-color instructions where they are to go. As usual with Antarqui decals, the decals are printed on a backdrop of the corresponding color on the aircraft. This saves a lot of cutting around the decals, but does require careful matching on the paints used on the model.

This decal set is available directly from Antarqui or the SAFCH Sales Service <safo@redshift.com> for \$6.00 plus postage.



French Indochina Bearcat, 1/48-scale decals. **Royal Thai Air Force Bearcat,** 1/72-scale decals. Antarqui Decals, 757 Emory St. #106, Imperial Beach, CA 91932-2231.

This "Twin pack" consists of the decals for a 1/48-scale French Grumman Bearcat in Indochina, and decals in 1/72-scale for a Thai Bearcat. The French Bearcat, '5171', is in overall Sea Blue with individual letter "M" and squadron emblem. The deals measure 115 mm by 50 mm and provide everything needed.

The Thai Bearcat is in overall aluminum with colorful tail feathers and water buffalo unit emblem. The decals

measure 100 mm by 70 mm and provide everything needed to make a model of this colorful aircraft.

These decals can be obtained directly from Antarqui, or from the SAFCH Sales Service (safo@redshift.com) for \$6.00 postage.

[Editor: I'm not a fan of including decals for two different scales in one package, but Antarqui wants to keep it that way.]

"The Antarqui decals for the **French Lysanders** arrived yesterday and I have had a chance to check them out. These early Lysanders carried alternating mirror image camouflage patterns, so I think the upper surfaces of P9181 should be a mirror image pattern of that given, I also think the colours should be reversed - however since the only photo I have was taken in full sun, the whole of the top surface is open to interpretation!

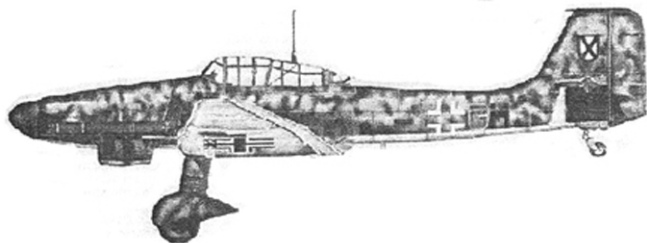
"I have a shot of N1204 which seems to be a light colour overall, with repair patches in a darker colour so who knows? I think that the underside may be Gris Bleu Clair [Light Blue Grey] and that the light colour is Jaune Sahara [Sahara Yellow] as I shouldn't imagine the French would have a ready supply of RAF colours to hand.

"Modellers should be aware that P9181 is a MkII Lysander and as such had a smooth cowled Bristol Perseus engine as opposed to the 'blisters' in the Bristol Mercury powered Mk I & III, and a shorter chord cowl. Don't forget the air filter as shown in the side view with the decals, and according to my meager references, the aircraft generally flew without the rear canopy. The photograph is in Aero-Journal # 13

"Best references are 4+ publication on the Westland Lysander and the MMP book on the same subject. Kit: Gavia's 1/48 is a MkIII Special Duties and has no stub wings although the Eduard profile pack does. I have an old Hawk kit which may provide the stub wings, there is also an Eduard etch set for this kit."

Malcolm Barratt (SAFCH #1716), UK.

[Ed: Denys Voaden sent this drawing of a ROA Ju 87 along with a translation from the Russian magazine *Voenno-Istoricheskii Zhurnal* # 8 2014, p.55.]



An aeroplane of the Vlasov VVS [Military Aviation Forces] carrying the insignia of the ROA on the tail. This is the St. Andreï (Andrew) cross in blue and white, probably with a red surround. The drawing seems to show two letters aft of the German cross, but they cannot be clearly identified. St. Andreï was the "patron saint" of old Russia, and this blue-white-red cross was especially connected to the Imperial Russian Fleet.

A German-language book on the ROA exists: *Vlasov against Stalin: the Tragedy of the ROA*, by I. I. Hoffmann. (The German title is not known to me - DJV.) There was a newspaper "Nashi Kryl'ya" issued by the VVS Committee for the Liberation of the Russian People.

"SAFO 151 finally came to the top, and the long weekend enabled me (for a change) to read it through at one sitting any more!

"Needless to say, I was very pleased to see friend Santiago Rivas publish his excellent study on the Chilean Ju 86's, which certainly adds considerably to our understanding of these elusive aircraft. In reviewing his text and table, however, I find that there are some things I should pass along that might possibly add to his account, while raising a few questions.

"First and foremost would be the actual, full designations of these aircraft. Sources disagree, but they are variously reported as Ju 86K-6 or Ju 86k-10 for the bombers (although one is given as Ju 86Z-1) while the four transport versions are given as either Ju 86C-1, Ju 86Z-1 or Ju 86Z-4! Sure would be nice to know which is accurate!

"Intelligence reports show the first six actually arriving in Chile on 23 June 1938 while two of the LAN transport versions arrived 20 November 1938. An Intel report dated 26 July 1945 is interesting because, it was essentially a Lend-Lease requisition for US Pratt & Whitney engines to re-engine eleven Chilean Ju 86s. The request was denied,

but the request also confirmed that Chile had already successfully re-engined two of their Ju 86s locally with the assistance of Pratt & Whitney representatives.

"Although I do not question Santiago's 'Retired' dates, the Chilean Air Order of Battle dated 3 December 1946 still reflects a total of 11 Ju 86s: one of them at HQs (clearly the transport he noted) and the other 10 with I Brigada Aerea, Grupo 1 at Iquique. Similarly, a 16 January 1946 report stated that '... locally adapted bomb racks were fabricated by the Maestranza de Arsenales and installed vertically in the bomb bays of the FACH's Ju 86s, of which the FACH now has only two equipped with engines - P & W's were installed in these when their original BMW engines wore out.' One of these two was unserviceable at the time. I have wondered for a long time if this meant that bomb racks had been installed in the two surviving transport versions?

"For what it is worth, Part 1 of an excellent article on the Chilean Ju 86s appeared in the "Boletin" of the Museo Nacional Aeronautico y del Espacio (No.10) for July 2011 by Danilo Villarroel Canga, Anselmo Aguilar Urra, and Esteban Cornejo Carrasco which

Aided by the German 4th Air Division, the ROA participated in a single military skirmish with the Red Army near Erlenhof in April 1945 "26 stormoviks" (presumably Ju 87s - DJV).

General Andrei Andreevich Vlasov was born in 1901, and had a distinguished career in the Red Army. He was captured by the Germans in 1942 and had an uneasy collaboration with them, hoping to replace Stalin's communism with a democratic Russia. At the end of the War, he was handed over to the Soviet authorities and executed on 2 August 1946.

Denys Voaden (SAFCH #1483), USA.

[Ed: The book *Ju 87 in Foreign Service*, by Miroslaw Wawrzynski (Mushroom Model Publications, #5107) contains a chapter on the ROA covering the entire history including mention of their use of Bf 109G, Ju 87, and even a Me 262. There are no photos or drawings, but this book is highly recommended for its coverage and illustrations of other users of the Ju 87'. At one time, there was a decal set from a Czech company that featured a Bf 109G of the ROA. I don't know if it is still available.]

appears to include all of the same images that Santiago supplied to you as well as six wonderful color-side views."

Dan Hagedorn (SAFCH #394), USA.

"José Fernandez' article *The Ethiopian Air Force until 1936* in SAFO #151 is an interesting read. It is fascinating to see how this 'French view' of what happened differs from British reports and German reports. Here, French personnel (and aircraft) play the leading role.

"However, there are a number of details that need correction. On page 89 no mention is made of the Fiat AS-1 and Junkers W 33 that were acquired in 1929. Ludwig Weber did not arrive with the Junkers, but came later to rebuild it after it had crashed. Its history will be described in detail in an upcoming book on the Junkers W 33, W 34 and K 43. The Meindl/van Nes A VII material kit was imported from Austria, not Germany, and work was started on three more that were never completed. The three Fw 56s were part of an illegal arms deal and they finally ended up in Spain instead.

"Carl Gustaf von Rosen, first mentioned on page 91, was not a

"Swedish army" pilot, but at this time a private pilot. His father was not a WW I ace but a geographical explorer. There was no "Swedish Fokker" in Ethiopia and the other Swedish aircraft referred to was the Heinkel HD 21 that von Rosen brought to Ethiopia in 1935. It was operated for the Swedish Red Cross. I think that the DH 84 Dragon did in fact arrive in Ethiopia.

"Some of the aircraft inscriptions (names) are known, for example those of Potez 25 No 1 and No 3 on page 92: *Nesre Tafari* and *Nesre Makonnen*.

"I would like to mention that the book (<http://z-bok.se/catalog.17.html>) is full of small air forces information and in a couple of months I hope that our book on the Junkers W 33, W 34 and K 43 (<http://z-bok.se/catalog.22.html>) will be printed. It is of similar size to the Junkers F 13 book."

Lennart Andersson (SAFH #68), Sweden.

"A few days after I received your notification of dispatch of SAFO #151,

my copy arrived - this airmail business is getting quite efficient!

"Comments on the content of this issue: More extremely interesting info from Doug Dildy. I particularly enjoyed his critical dissection of the 'Red Devils Over The Yalu'; it certainly saved me the bother of looking for it over here! Thanks to Santiago Rivas for further enlightenment concerning South American aviation. As I may have said before, on this side of the Atlantic we tend to be too Eurocentric. The translation of Jose Fernandez 's chapter from La Campagne d'Abyssinie is very useful to one who has #24 of the 'Ciel de Guerre' series (in Europe it sells at 14 Euros). In my opinion, this book is a must buy for anyone interested in African aviation

Malcolm Barratt (SAFCH # 1716), UK.

"I've some comments on SAFO #151: The various Latin American pieces are always interesting, with little-known facts emerging. Doug's Korean

chronology always impresses with its thoroughness, and even more so when pictorial material is included. The book and decal reviews are guaranteed enlightenment, as always. But I must admit what excited me most was the start of Greg Kozak's "Exotic" series. He must have an amazing collection! While I realize that we live in an anything-but-ideal world, it might be just a teeniest smidgen more ideal if the photos were larger. After all, it's the markings that make these pictures unique - and those special markings are extremely difficult to discern in the present presentation. I'm certain he can't provide such a remarkable close-up as the Mozambique insignia on page 75 in every case. While I do like photos of North Korean aircraft, I feel that the full-page back cover doesn't really provide any additional info that a smaller version wouldn't show. Just imagine what one of Greg's rarities would have looked like in that position!"

Ted Koppel (SAFCH #118), USA.

Mexico: May 1920

Sources and References

Books

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Tte. Carlos Santana.

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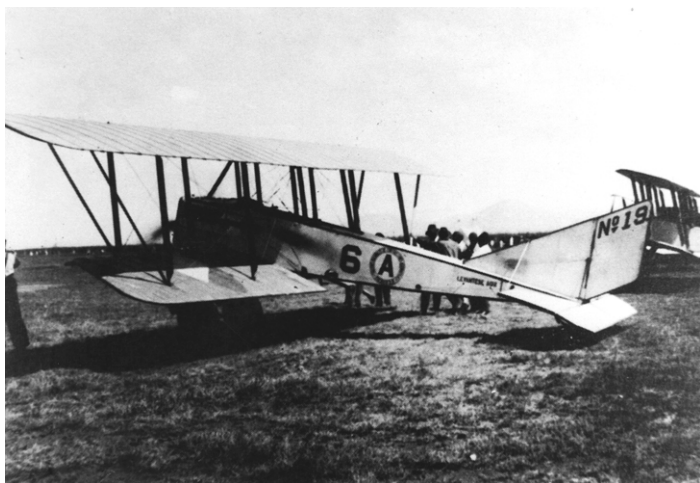
Aircraft files

Farman F-50Bn2.

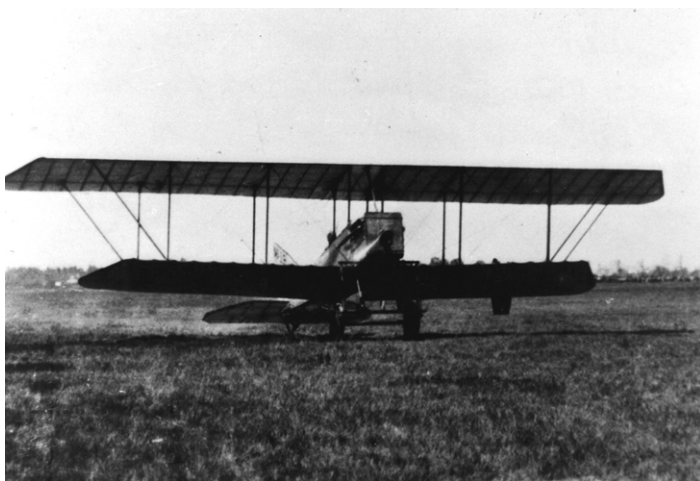
TNCA Serie A Biplano.

Serie B Biplane.

TNCA Serie H Parasol.



24 Another view of TNCA Serie A 6A19 at Balbuena Airfield. (Hector Davila Cornejo)



25 Front view of a TNCA Serie A equipped with a Hispano Suiza engine and longer upper wing. (Carlos L. Vazquez)



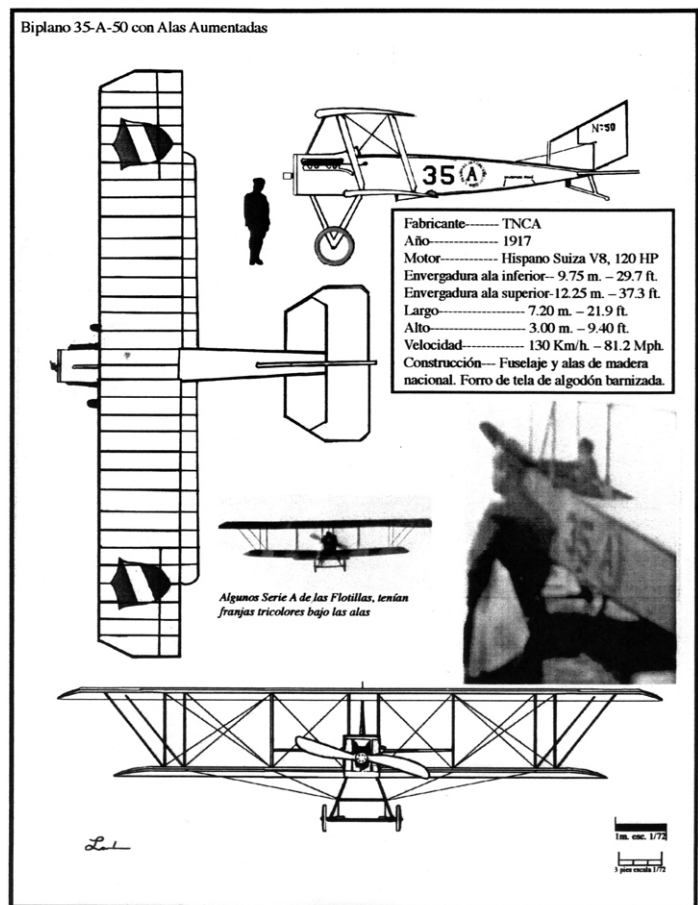
26 Former USAAS Lt. Ralph O Neill who came to Mexico after May 1920 and helped modernise the training system of the Mexican Air Force. (Author Collection)



27 Front view of a Farman F-50Bn2 of the Mexican Air Service. (Hector Davila Cornejo)



28 A Hispano Suiza equipped Serie A in flight showing the longer upper wing. (Pablo Larumbe Duran)



29 3-view of a TNCA Serie A 35A50 equipped with 160hp Hispano Suiza engine. This could be one of the aircraft that flew escort for Carranza's train. (Pablo Larumbe Duran)



Thirteen of the single seat Chilean Mirage 50FC and Cs were upgraded to become Mirage 50CNs, the aircraft now all known as the ENAER Pantera.. (Luis Calvo)